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the ROMAN
MILITARY BASE at
DURA-EUROPOS,
SYRIA *An Archaeological Visualization*

SIMON JAMES

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THE ROMAN MILITARY BASE
AT DURA-EUROPOS, SYRIA

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An Archaeological Visualization

Simon James

A research project conducted in collaboration with
La Mission Franco-Syrienne d'Europos-Doura

and

Yale University Art Gallery

Supported by

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For Susan Matheson

whose generosity and openness has made research on Yale's Dura archive so rewarding

&

Pierre Leriche

who made the military base project possible—and even if we do not always agree!

PREFACE AND ACKNOWLEDGEMENTS

Study of remains as complex as those of Dura-Europos must necessarily be a collaborative multi-disciplinary effort, involving archaeologists, historians and epigraphers, architects and ancient art specialists, with a host of others whose multiple perspectives help us build up a fully rounded picture of a remarkable multi-period, multi-cultural ancient city. However, collaboration in a larger enterprise still leaves room for individual initiatives. Temperamentally I have never felt any strong desire, or indeed any marked aptitude, to organize and lead, as opposed to participate in, an overseas expedition (although since 2015 I find myself doing so in Cyprus, and generally enjoying the experience!). While key elements of the present project constituted direct collaborations with colleagues (notably the geophysical survey work), and it was made possible by the generous support of the larger Franco-Syrian led project team, most of the research resembled my previous study of the portable martial material culture from the site in comprising solitary effort. Many of the most satisfying moments during the course of the project were experienced on site at Dura, when for days at a time I enjoyed the possibly unique privilege of roaming solo and at will over sparsely published excavated and unexcavated Roman military remains equating to half the area of a legionary base, pondering and pursuing any point of interest as it arose. The pleasures of this opportunity were frequently matched by the flashes of insight experienced while sequestered in my study, surrounded by books and files, working through archival records in combination with the new field data, as I generated both text and images for this report. More generally, as was the case when writing *Dura Final Report 7* on the military artefacts, I find it immensely productive and profoundly satisfying to be able to undertake a research project entirely by myself, from data collection to final presentation—especially in the form of generating my own interpretative drawings as an integral part of the research process. I suppose this is in the spirit of the long tradition of the ‘lone scholar’ which has characterized so much research, not least on the classical world. Working in the modern British higher education sector, in which the pressure to focus on large, big budget collaborative research programmes grows ever stronger, I am therefore acutely aware of how deeply unfashionable this approach is. However, I hope the results of this project support the case for continued diversity of approaches to archaeological research, including ‘lone scholarship’.

This volume will also be seen by some as old-fashioned in being a big, heavy book. My central justification for this is that it is publishing basic data, much of it for the first time, on a large area of a famous and still intensively studied archaeological site. Yet it is more generally with the *Zeitgeist* in using digital technology to create it, and the archival resource behind it. It also seeks to innovate—or at least, to assert the value of neglected approaches—in emphasizing so strongly the role of the visual at all stages of scholarship, from data collection to presentation, in an academic field still, in my view, unduly myopic in its fixation on text.

As it is such a large volume, I should add something on how I envisage readers using it. As with the substantial original publications, Cumont’s *Fouilles* and the Yale/French Academy *Preliminary Reports* and *Final Reports*, only the most dedicated Dura researcher is likely to read it from cover to cover; I anticipate many readers will look at the introduction and the conclusions, and pursue the detailed aspects of the material presented which interest them. For these reasons, in the style of contemporary television documentaries which précis the story line after every commercial break, there is a degree of repetition of key information and arguments to help orientate readers dipping into the volume; apologies to the marathon reader if this irritates, but anyone emerging from the long haul through Part II may also find it useful to recap the wider purposes of having done so!

The project was kindly supported by the University of Leicester, through granting of the precious periods of leave from teaching and administrative duties essential to permit sustained focus on the task. I am especially grateful to the Leverhulme Trust and the Gerda Henkel Stiftung for funding vital additional research leave at different stages of the decade-long project. Key aspects of the work, especially the geophysical survey, were kindly funded by the British Academy, the Society of Antiquaries of London, and the Society for the Promotion of Roman Studies.

As acknowledged above, the project would not have been possible without the active support of many people, the direct participation of others in the field, and input from many more through discussions. I am especially grateful to my former student and now valued collaborator Dr Jennifer Baird, on whose own work I have drawn heavily, regarding both the site and the Yale archive. She was an immense help in discussing remains of the military housing on site, and in the conduct of survey, with two other Canadians, her husband and my colleague Dr Dan Stewart, and our mutual friend Ben Gourley for the Total Station work. The estimable Kris Strutt from the University of Southampton with his assistants undertook the invaluable geophysics. And absolutely critical was the hospitality of, and interaction with, our French, Syrian, and other colleagues of *la Mission Franco-Syrienne d'Europos-Doura*, above all Pierre Leriche, who welcomed the Brits and Canadians warmly, if sometimes inclined to tease *les sujets de Sa Gracieuse Majesté britannique*! MFSED generously accommodated and fed us, and arranged our access to the site with the Syrian authorities—fundamental contributions.

Equally vital was the role of the Department of Ancient Art at Yale University Art Gallery. The project was based on bringing together direct observations at the site with the records of the Yale/French Academy excavations, for which full access to the old expedition archive was also essential. This was warmly granted. Lisa Brody and Megan Doyon continued YUAG's admirable tradition of not simply allowing scholars access to the archive, but also giving their time to help actively, following the practice set by Susan Matheson from which I had so greatly benefited during my previous Dura project.

I would also like to express my gratitude to other Dura scholars for discussions and answers to questions on a myriad of matters, especially Ted Kaizer, Lucinda Dirven, and Gaëlle Coqueugniot. Christoph Benech kindly granted permission for me to use his magnetometry data, and thanks are due to Martin Sterry and Nichole Sheldrick for advice regarding satellite imagery. Thanks also to Martin Millett, as ever, for encouragement, and for many years ago introducing me to the Siret quote.

The following also kindly provided various references: Jane Ainsworth, Markus Gschwind, Rob Matthew, Anna Walas, and, for the Jefferson quote, Diarmaid Walshe.

I would also like to thank David Breeze, Ian Haynes, and Jennifer Baird for kindly undertaking the onerous task of reading the draft of this book, providing invaluable feedback, and saving me from errors; of course, they do not necessarily agree with the views expressed.

SUMMARY

The ancient city of Dura-Europos (Salhiyeh), overlooking the Euphrates in eastern Syria, has for a century provided our most vivid window into life in the Arsacid Parthian and Roman Middle East. This Hellenistic military colony grew under Arsacid hegemony into a modest town with a Greek-speaking ruling class but largely Aramaic-speaking population, and AD c.165 passed into the Roman orbit until its destruction and abandonment c.256 as a result of a Sasanian siege. The site was never reoccupied, making its entirety readily accessible to archaeological explanation following its identification in 1920. Discoveries during large-scale excavations between the World Wars, notably papyri, inscriptions, and the wall-paintings of temples, an early church and Synagogue, made the site famous. Dura also accommodated a Roman imperial garrison, which carved out a large military base in the northern part of the town. Much of this was revealed in the 1930s, but it was never systematically studied or published. Believed to have occupied a quarter of the walled area of the city, the military base was clearly an important part of the story of Dura in its final, Roman era. It also constitutes the only substantially explored example of a major class of Roman military site of the Principate: urban cantonments, very different from the familiar 'playing card' forts of Europe. Research and publication of the base therefore offered the prospect of making contributions to the understanding of Dura and the Roman Middle East, and more generally to Roman military studies.

The present writer conducted an archaeological project to investigate the military base, involving fieldwork at the site (2005–10) conducted in collaboration with *la Mission Franco-Syrienne d'Europos-Doura* (which undertook renewed research and conservation work from 1986 to 2011), and with Yale University Art Gallery which holds the archive of the major pre-World War II excavations. The project became an exercise in visual archaeology, and the study of space and movement.

Dura's military base proved to be even larger than the original excavators realized. Another key conclusion was that much of it was created significantly earlier than has been thought. It was not, as has been commonly accepted, a creation of the years around AD 210, and so a feature only of the second half of Dura's Roman period; it had grown large decades before this. A parallel study of the composition and size of the garrison based on the textual evidence comes to the same conclusion—that the Roman military presence grew large in the later second century, not the early third. These conclusions have important implications for the political history of the city, which has been argued to have seen a Palmyrene protectorate in the later second century, a hypothesis now looking less tenable.

Another important outcome of the project is identification of another major, hitherto unrecognized demographic component at Roman Dura: large numbers of military dependents—servants and family members—comprising the rest of an 'extended military community'. Much more than a body of soldiers, the Roman military and military-related presence was effectively a city within a city. Such a new perspective has wide-ranging social and economic implications.

All this implies that the Roman military presence exerted an even greater influence on life in Dura than has been realized. Previous commentators have variously represented it as everything from a brutal military occupation throttling the life out of the city, to a new engine of economic growth and prosperity, leading towards integration of soldiers and civilians in the decades before the city's destruction. Dura's remarkable combination of archaeological and textual evidence constitutes perhaps the best case study we have for military-civilian relations from the Roman provinces, offering the prospect of more nuanced interpretations of what happened during the coexistence of the city's two communities. The new picture of Dura offered in the present work explores the complexities of both the host urban society and the extended military community, envisaging shifting patterns of interaction with both winners and losers at all levels, against the

wider background of imperial politics and wars, which would ultimately snuff out the city entirely.

That it is possible at all to conduct this study is a consequence of the tragic destruction of Dura in war between the Roman and Sasanian empires, leading to permanent abandonment of the site. During the course of the Syrian civil war which erupted in 2011, the ruins of the city and its adjacent necropolis fell victim to systematic looting on an industrial scale amounting to the second destruction of Dura. This assault on the heritage of Syria and the wider world places greater urgency on the need to publish, and so secure for the future, the knowledge we hold on a remarkable ancient city in museums, archives, and project records. The present work constitutes a contribution to that wider effort.

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- Azzanathkona beyond. Bottom R, the low platform of shrine 19, with colonnaded court 18 in front of it, and the line of sight through the *principia* forehall to colonnaded 10th St beyond. The E3/E4 bath is in the middle distance.
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 - O: Residential bath belonging to:
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 - Q: 'Temple of the Roman Archers'
 - R: *Campus* Zeus temple

S: *Campus*

T: Citadel

U: Military administrative facility in B2

V: Complex with elaborated entrance

W: C3 bath

X: M7 bath

Y: L4 supply/workshop/market facility

- XXIII. Red lines indicate the boundary of the military base, known or inferred with varying degrees of confidence, and its identified internal subdivisions. Letters indicate structures in the civil town with known or supposed military associations: a. M8-J1/K2; b. L7-A 'House of the Roman Scribes'; c. G7-H 'House of Terentius' (spurious); d. G5-C 'military brothel'; e. block C7.
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LIST OF ABBREVIATIONS

<i>CRAI</i>	<i>Comptes-rendus de l'Académie des Inscriptions et Belles-Lettres.</i>
<i>FR N</i>	<i>Excavations at Dura-Europos, conducted by Yale University and the French Academy of Inscriptions and Letters, Final Report Volume N.</i> The series was never completed. Published volumes are listed together at the head of the bibliography.
<i>MFSED</i>	<i>la Mission Franco-Syrienne d'Europos-Doura.</i>
<i>OED</i>	<i>Oxford English Dictionary</i> < http://www.oed.com/ >.
<i>P. Dura</i>	Dura papyri and parchments, as numbered in the publication <i>FR 5.1</i> .
<i>P. Euphr.</i>	The 'Middle Euphrates papyri' (Feissel and Gascou 1989; 1995; Feissel et al. 1997; Feissel and Gascou 2000).
<i>PR N</i>	<i>The Excavations at Dura-Europos, Preliminary Report on the Nth Season.</i> The series was complete except for the tenth and last season (on which see Matheson 1992). Published volumes are listed together at the head of the bibliography.
<i>Tab. Vindol.</i>	The Vindolanda Tablets (Bowman, A. K. and Thomas 1983; 1994; Bowman, A. K. and Thomas 2003).

CONVENTIONS

North, Northeast, etc. are generally abbreviated to N, NE, etc. Most of Dura's buildings, civil and military, were aligned on the orthogonal street grid laid out on the plateau, the principal axes of which run roughly NNW–SSE and ENE–WSW. More precisely, the great H St is orientated 26° W of true N. For simplicity of description of city blocks and buildings the archaeological convention of establishing a conventional 'Site North' is generally followed, here taken to be the axis of H St (Fig. 1.1). However, some structures are on radically different alignments, most obviously the Roman Palace lying at roughly 45° to the street grid. In such cases a local site North is specified to orientate description.

Where possible archive numbers are cited for drawings held by Yale, although some are now known only from photographs, in which case negative numbers are provided. The photographic archive is mostly labelled by a letter to identify the season plus unique negative numbers, e.g. B254 for the second season, although for the sixth season blocks of photographs are identified by second letters or Roman numerals, e.g. Fa12 or Fvii54. Additional series, including 'Y', 'Z', and 'Yale' sequences, include artefact photos shot at Yale, record imagery of drawings, etc.

SITE RECORDING: AREA LABELLING SYSTEM

The Yale/French Academy project labelled the city's streets and to identify site locations devised a scheme based on city blocks, on the plateau defined by an orthogonal street grid (Fig. 1.1). E of Wall St running behind the W defences, N-S roads were labelled alphabetically W-E, from A St to K St. E-W roads were numbered in a system articulating around 'Main St' running from the Palmyrene Gate, odd-numbered streets to the S, and even-numbered to the N. The more irregular streets in the lower town were unlabelled except 'Lower Main St' leading to the vanished River Gate.

The block labelling scheme was apparently devised by Hopkins (*PR* 6, pl. 1). Main and H Sts were especially wide, while the N-S D St, and E-W 3rd, 4th, and 8th Sts were also noticeably broader than most. This super-grid of major thoroughfares subdivided the plateau area into groups of eight elongated city blocks. Hopkins gave each group a letter, within which each block was numbered, e.g., E8. The irregular outline of the city resulted in some lettered regions being assigned additional whole or part blocks. During later seasons Hopkins's block-numbering scheme was revised, and used in the publications even though it was never set out on a published plan. In this revised scheme Area A was reduced to the wadi floor around the N part of the Citadel, while the N-most part of the plateau, previously designated 'A', was relabelled 'X'. The final Yale scheme was retained by MFSED and further extended, e.g. up to C11 around the expedition house, and J9 in the NW. This developed scheme is followed here, and further extended, in defining block E9 (Fig. 1.1).

Within blocks, site records show that rooms and spaces initially received unique numbers, sequentially as they were exposed, as still seen in E8. On completion of excavation, where analysis of overall block layout distinguished component buildings, each was then assigned a letter (e.g. L7-A), and component rooms renumbered: '1' was usually assigned to any central court, and '2' often to the room deemed most important. ('Messy' areas like E8 retained their initial space numbering.) This procedure was widely used for areas of housing, and similar schemes applied to temples and baths. Unfortunately concordances do not always survive, in some cases meaning site record data cannot be equated to publications. These rules were also broken, e.g. rooms in E5 dug with the adjacent E7 *principia*, but not even communicating with it, were misleadingly given E7 numbers.

TERMINOLOGY FOR THE SITE, ITS STRUCTURES, FEATURES, AND AREAS

According to Isidore of Charax, the city was ‘Dura...called Europos by the Greeks’ (*Parthian Stations* 1). ‘Dura-Europos’ (‘Doura-Europos’ in French) is a long-established modern compound. In antiquity the city was known to Greek-speakers as Europos, the name given to the original Hellenistic garrison station, but to the Aramaic-speaking majority, it was Dura, both names being in use throughout its history. In having twin Greek and Semitic names, it resembled Palmyra/Tadmor (Kaizer 2017, 87–9). However, Pierre Leriche, head of the Franco-Syrian mission to the site, has for some years advocated the form ‘Europos-D(o)ura’, to foreground the Hellenistic origins and civic culture of the city (e.g. Leriche et al. 2011, 33). This has not been followed by most scholars working on the site and its data (e.g. (Kaizer 2016a, 7–8). Seeing no advantage to this proposed change (and noting that Isidore prioritized the Semitic name), I continue to use the established form Dura-Europos, normally abbreviated to Dura, but also use Europos where appropriate.

The various structures, features, and regions of the city were named by the excavators, e.g. L7-A, the ‘House of the Roman Scribes’. Except for the amphitheatre, named as such in an inscription, these labels were all inventions or applications of modern terms (e.g. ‘citadel’), or known ancient ones, e.g. agora, and notably *praetorium*. Embedded as they are in expedition publications and subsequent literature, it makes sense generally to retain these names, and normally I have done so. However, some established names are problematic. For example, the sanctuary called the Dolicheneum in X7 wasn’t, at least, not primarily. One simple expedient, indicating an established name has become problematic while retaining it for clarity, is to put it into quote marks, i.e. ‘Dolicheneum’. Yet some 1930s labels now look so misleading that changing them is appropriate.

In the original publications, the excavators pondered what to call the Roman military headquarters building, opting for *praetorium* over *principia*. Since that time, the term *principia* has become firmly established in Roman military studies, *praetorium* normally now ascribed to the commander’s residence in early imperial bases. In this case, I have opted to follow current standard usage, and use *principia*.

Similarly, it is increasingly certain that the sprawling ‘Palace of the *dux ripae*’, was not built for, and probably not even primarily occupied by, *duces ripae* (the nature and significance of which office, if such it was on a formal basis, anyway looks increasingly uncertain). I therefore opt for the more neutrally descriptive ‘Roman Palace’. This new label also has the advantage of more clearly echoing the names ascribed to the earlier Hellenistic and Parthian ‘Palaces’ on the Citadel, and the ‘Redoubt Palace’ (*Strategeion*) dominating the lower town, inviting closer comparisons between these structures.

I have also created one or two new names. Notably, having identified the road between the junction of 8th and H Sts and the inner wadi floor as a key feature of the base zone, it rates a formal label: the Wadi Ascent Road.

The late war has done the work of centuries . . . The lost cannot be recovered; but let us save what remains: not by vaults and locks which fence them from the public eye and use . . . but by such a multiplication of copies, as shall place them beyond the reach of accident.

Thomas Jefferson to Ebenezer Hazard, Philadelphia, 18 February 1791



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II. Portrait of Heliodorus the *actuarius*, ceiling-panel painting from house L7-A.



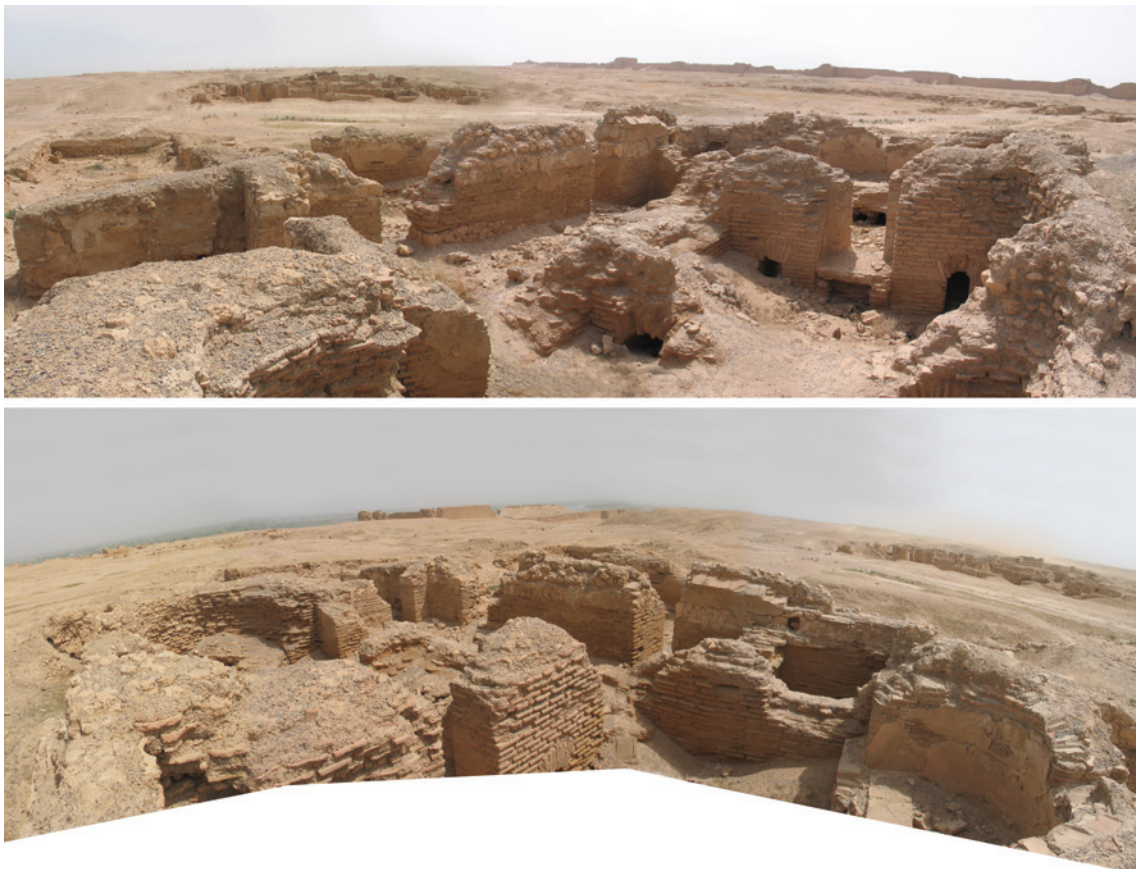
III. The Euphrates and its fertile plain, looking SE from the Citadel.



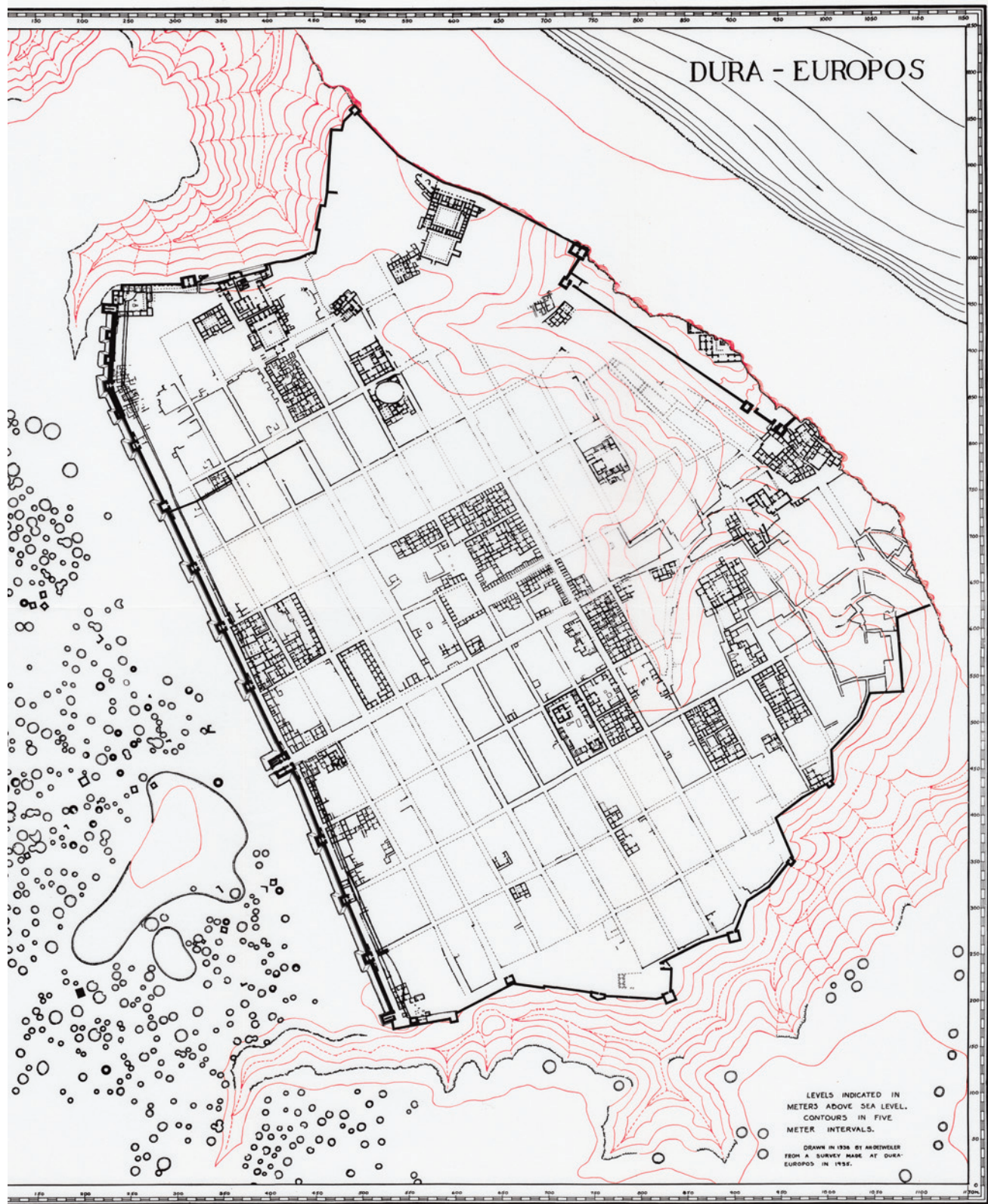
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V. The western city wall, looking S from Tower 26. The breach in the wall is post-Roman, and reveals a section of the mud-brick defences at this point. Most of the wall, in the distance, was built in ashlar; the stretch in the foreground was of mud brick, subsequently reinforced with more of the same material, visible in section in the breach. The open steppe plateau is seen at R. The change of direction in the city wall enfolds block J7, part of the military accommodation inside the base.



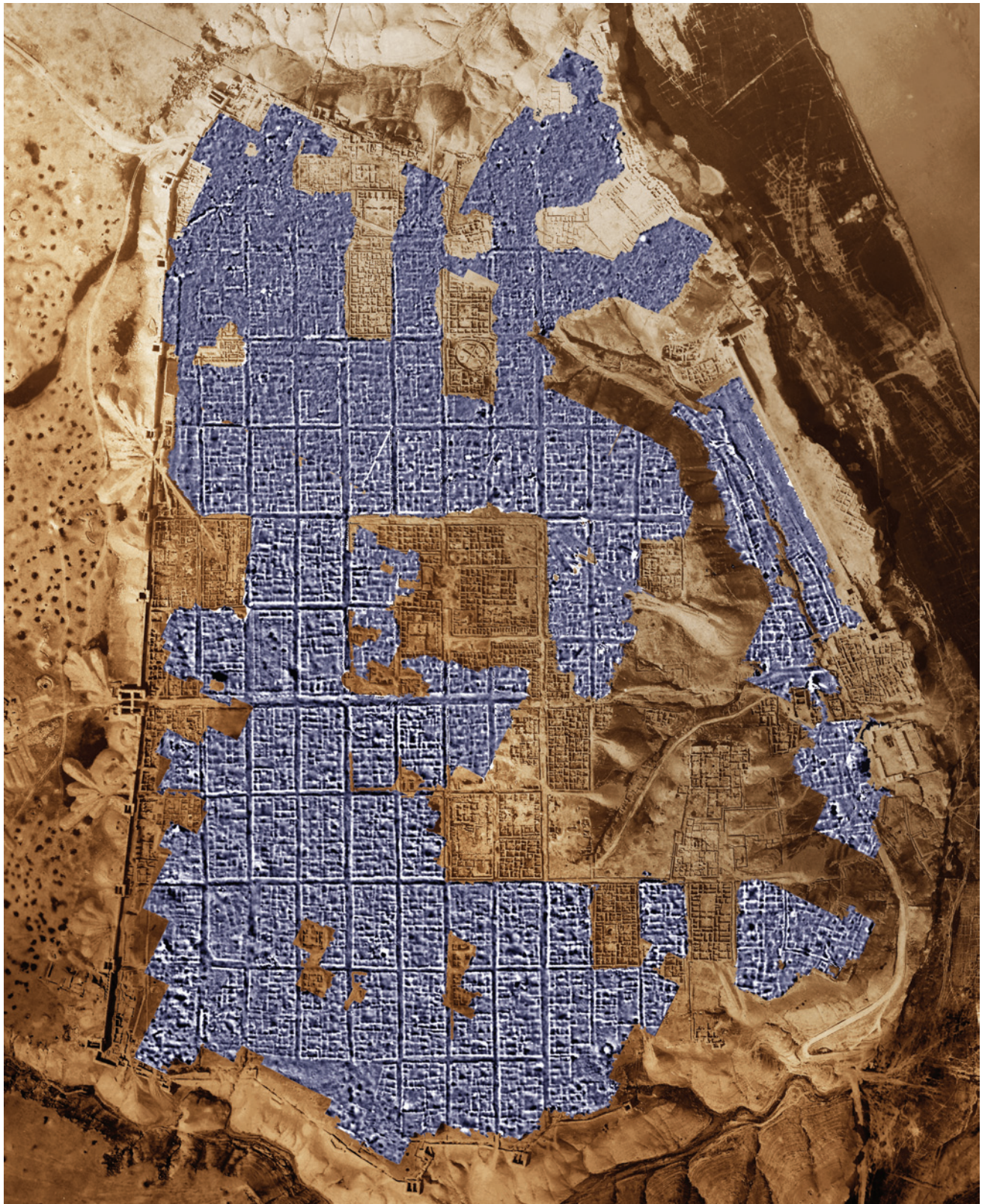
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VII. Satellite image of Dura-Europos under low-angle winter sun picking out the topography and excavated remains, before the site was looted. Imagery: DigitalGlobe, Inc., 0.6m resolution, taken on 6 January 2009.



VIII. Plot of modern magnetometry data, combining that from the present project collected by Kris Strutt with an earlier survey by Christoph Benech, superimposed on the 1936 air photography.



IX. The E3 bath, with the levelled interior of the city behind, and the city wall and Palmyrene Gate in the background.

Note: Plate X is placed between plates V and VI.



XI. Fragments of figural wall paintings from bath *apodyterium* E3-A.



XII. View from the city wall of (L) the Temple of Bel, its plaza, and the N wadi defences, with the J1 house, Temple of Azzanathkona, and *principia* in the middle distance at R.



XIII. The 'House of the Prefect', J1-A, seen from the N, taken from the Tower of the Archers in 2010.



XIV. Panorama of the *principia* looking NE, with the forecourt at centre (crossed by the Ottoman road), and at L the cross-hall and N range, with the Temple of Azzanathkona beyond. Bottom R, the low platform of shrine 19, with colonnaded court 18 in front of it, and the line of sight through the *principia* forehall to colonnaded 10th St beyond. The E3/ E4 bath is in the middle distance.



XV. *Principia* cross-hall looking E.



XVI. *Principia* cross-hall looking W.



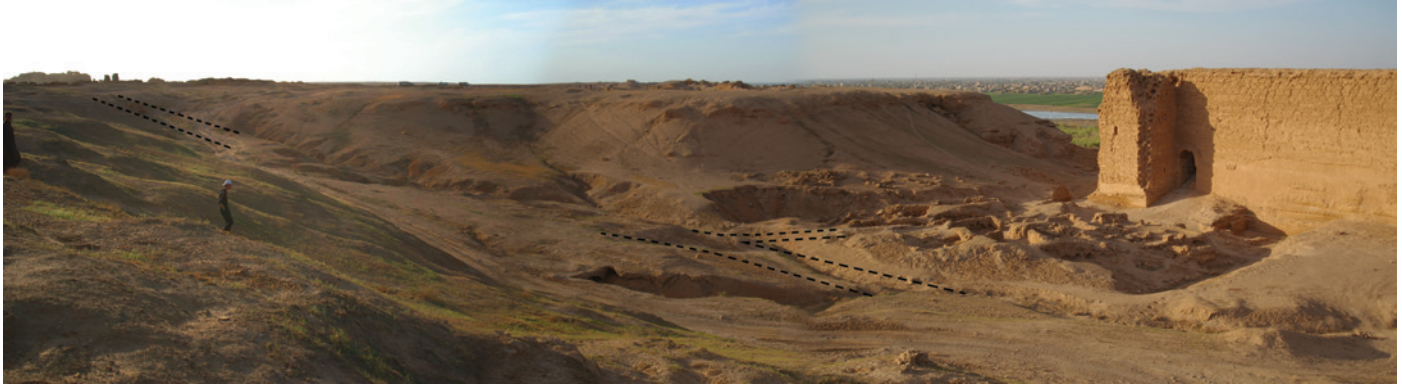
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XVIII. Brown's sketch of wall painting of Melpomene, Muse of Tragedy, from E8-12, on a site card.



XIX. Photomosaic of the 'Dolicheneum' and X7 from the SW in 2010.



XX. The Wadi Ascent Road, leading from the lower town and *campus* in the shadow of the Citadel, past the military temple (R), up towards the H/8th St junction (L). Much of the roadbed is still visible here. The upstanding wall of the *principia* is seen on the skyline at L, the Roman Palace likewise at centre. The Ottoman road, still used as a vehicle track, is in the foreground (photomosaic by SJ).



XXI. Citadel, inner wadi, and *campus* with Ottoman road at R, looking SE.

Opposite:

XXII. A new picture of Dura-Europos and its Roman military base, I. A 2D presentation of known elements, and interpretation of the overall layout, of the base with known boundary of camp wall, and its inferred continuation in red; dashed line where conjectural. Yellow: administrative and supply facilities. Blue: baths and amphitheatre. Pink: sanctuaries. Green: excavated, inferred, and (in the S part of the base) suggested areas of military accommodation. Orange: key structures in the civil town.

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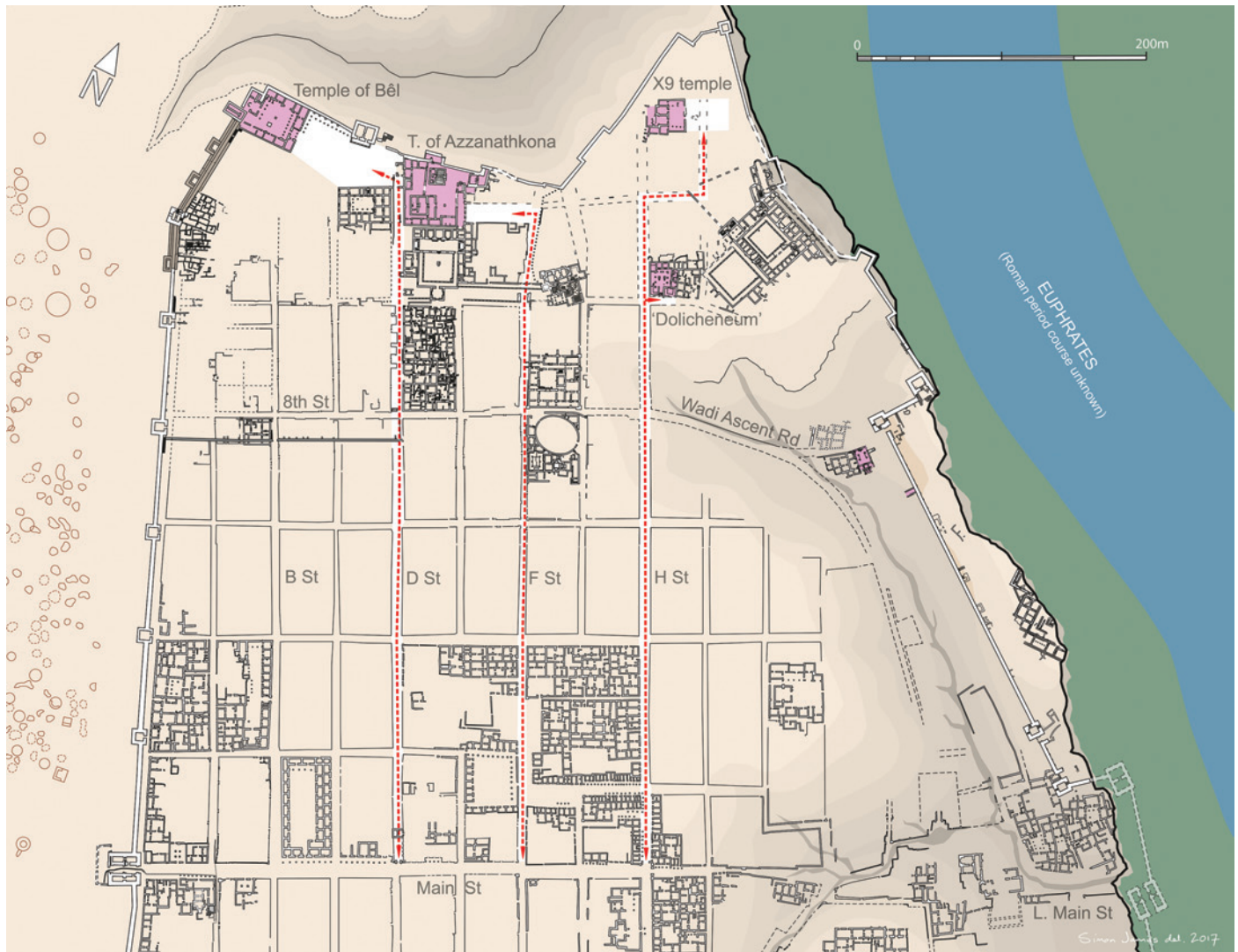
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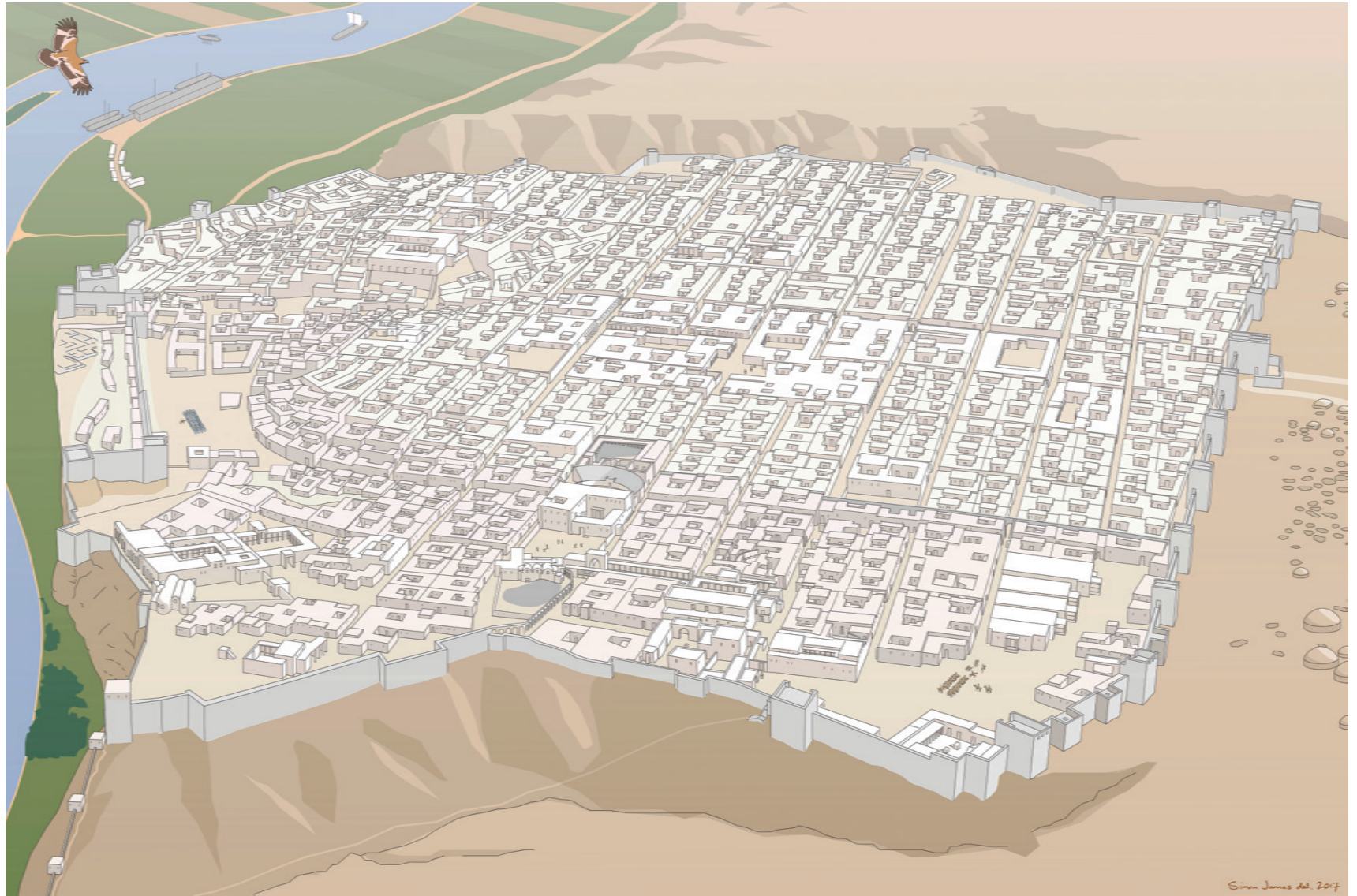




XXIII. Red lines indicate the boundary of the military base, known or inferred with varying degrees of confidence, and its identified internal subdivisions. Letters indicate structures in the civil town with known or supposed military associations: a. M8-J1/K2; b. L7-A 'House of the Roman Scribes'; c. G7-H 'House of Terentius' (spurious); d. G5-C 'military brothel'; e. block C7.



XXIV. Suggested pre-base processional routes between Main St and the agora district in the city centre, and (from W to E) the Temples of Bêl (along D St), Azzanathkona (along F St), and the X7 'Dolicheneum' and anonymous X9 sanctuary (along H St). The F St route appears to have been retained and endowed with an arch in the Roman military base period. The H St route also remained viable. The D St route was certainly closed off, but a diversion may have been arranged via the B St gate in the camp wall.



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PART I

Perspectives on Dura-Europos

The Big Picture

INTRODUCTION AND OVERVIEW

No excuse is needed for returning again to the extraordinary series of discoveries made at Dura-Europos in the 1920s and 1930s. Whatever reservations we may have as regards the presuppositions of those who undertook these investigations, about their methods and procedures, and about the still incomplete publication of the results, the work done there still represents one of the most wonderful and creative chapters in the whole history of archaeology.

Millar 1998, 473

It is now twenty years since Fergus Millar highlighted the importance of the spectacular archaeological discoveries made at the ancient city known today as Dura-Europos (p. xli). While praising the energy of the original excavators, he set out the shortcomings of the limited available publications, and called for ‘the entire corpus of material from Dura’, published and unpublished, ‘to be systematically reviewed’ (Millar 1998, 474). Research and publication had, in fact, never entirely ceased, and a new generation of scholars was already busy on both archive and site when Millar wrote. Since then, both the scale and pace of work have sharply increased, effectively developing into a renaissance in Dura studies. It is hoped that what follows will constitute a significant contribution to this wider current enterprise, regarding a key aspect of the city in the final century of its existence: the highly obtrusive Roman military presence.

Imperial soldiers were always central to the story of Dura-Europos on the Syrian Euphrates (Figs 1.1–1.6). Founded by soldiers of one empire, it was eventually destroyed in conflict between those of two more, and was even revealed to modern scholarship by troops of a fourth. In 1920 Indian soldiers of the British empire, on what we would now call counter-insurgency operations, camped in the ruins known as Salhiyeh, the ancient name of which was unknown (Fig. 1.7). They started digging defensive trenches, and were surprised to discover wall paintings, one of which depicted a Roman auxiliary regiment making sacrifice (Breasted 1924). The military tribune Julius Terentius, named in Latin, is seen offering incense before three Palmyrene gods, and the *Tychai* of Palmyra and Dura (Pl. I). Thus the name—as it turned

out, one of the twin names—of the city was rediscovered, as was the fact that it had a Roman garrison, here on the eastern fringe of Rome’s empire. Subsequent scientific excavations (1922–37: Fig. 1.8) revealed its other name given by its original Macedonian soldier-settlers: Europos. They also revealed that, in the decades before Dura’s violent destruction by the Sasanians (AD c.256) and permanent abandonment, one of the most prominent features inside its walls was a sprawling Roman military base. This took up a large part of a city which, as a result of recovery of its remarkable archaeological treasures of buildings, wall paintings, artefacts, and texts, has become one of the most important archaeological sites in the world.

For a century, exploration of the site has been an archaeology-led effort. *Europos* to its Greek-speaking elite, *Dura* (‘the stronghold’) to the majority Aramaic-speaking local population, this Macedonian royal fortress, which evolved into a late Hellenistic *polis*, became a Parthian regional capital, then a Roman provincial town, and finally a fortress once more before its destruction, was almost unknown to history until its twin names were recovered from its own ruins by the spade. Very nearly everything we have subsequently discovered about the birth, life, and death of the city, sometimes evocatively (if misleadingly) described as the ‘Pompeii of the Syrian desert’ (Rostovtzeff 1938, 2), is an outcome of archaeological fieldwork. The campaigns of the respected Belgian scholar Franz Cumont (1922–3, published in a monograph in 1926) and the Yale/French Academy expedition masterminded by the celebrated émigré Russian Mikhail Rostovtzeff (1928–37, from which derived incomplete series of *Preliminary* and *Final Reports*) recovered Dura’s thousand inscriptions and the famous papyri which give us such insights into the life of city and region (Fig. 1.9). Recovery of this spectacular hoard of written material has meant that subsequent study of the city was, and has largely remained, strongly text-led—indeed, I will argue excessively ‘text-driven’, especially in the case of the Roman military component. This was partly due to relatively primitive archaeological methodologies, leading the early excavators to lean too heavily on the indispensable yet very limited epigraphic evidence. They often pushed text-based interpretation much too far, while not fully appreciating, and

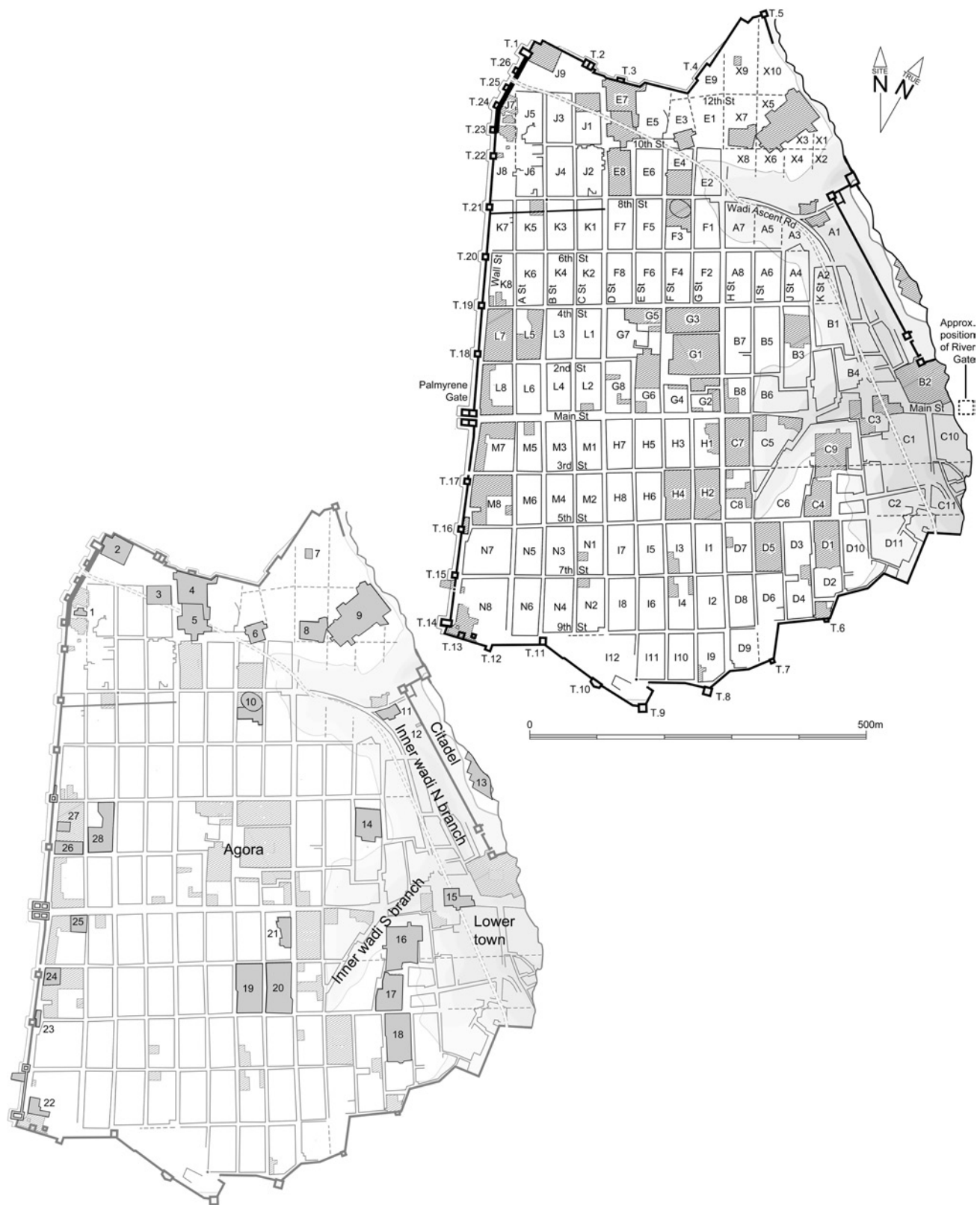


Fig. 1.1. Layout of Dura-Europos: top R, blocks and street labels, with true N and the site N used in the text; bottom L, important structures in the military base and civil town.

- | | | | |
|---------------------------|-----------------------------------|---|----------------------------------|
| 1. Mithraeum | 8. 'Dolicheneum' | 15. C3 bath | 22. Temple of Aphlad |
| 2. Temple of Bêl | 9. Roman Palace | 16. <i>Strategeion</i> (Redoubt Palace) | 23. Temple of Zeus Kyrios |
| 3. 'House of the Prefect' | 10. F3 bath/amphitheatre | 17. Temple of Zeus Megistos | 24. Christian building |
| 4. Temple of Azzanthkona | 11. 'Temple of the Roman Archers' | 18. House of Lysias | 25. M7 bath |
| 5. <i>principia</i> | 12. Military Zeus Temple | 19. Temple of Artemis | 26. 'House of the Roman Scribes' |
| 6. E3 bath | 13. Citadel Palace | 20. Temple of Atargatis | 27. Synagogue |
| 7. X9 Temple | 14. Temple of Zeus Theos | 21. Temple of the Gaddé | 28. Temple of Adonis |



Fig. 1.2. Aerial view from the NW, showing Dura in its setting of plateau, Euphrates cliffs, and wadis with Mesopotamia to the L. French Air Force, 29 March 1939.



Fig. 1.3. View of Dura from the NW (or site N), with the military base zone in the foreground. Taken by the French Air Force after the end of the Yale excavation campaign, probably in 1939.



Fig. 1.4. Aerial view of Dura from the NE, taken by the French Air Force in the late 1930s.



Fig. 1.5. Dura from the S, French Air Force, 1932.

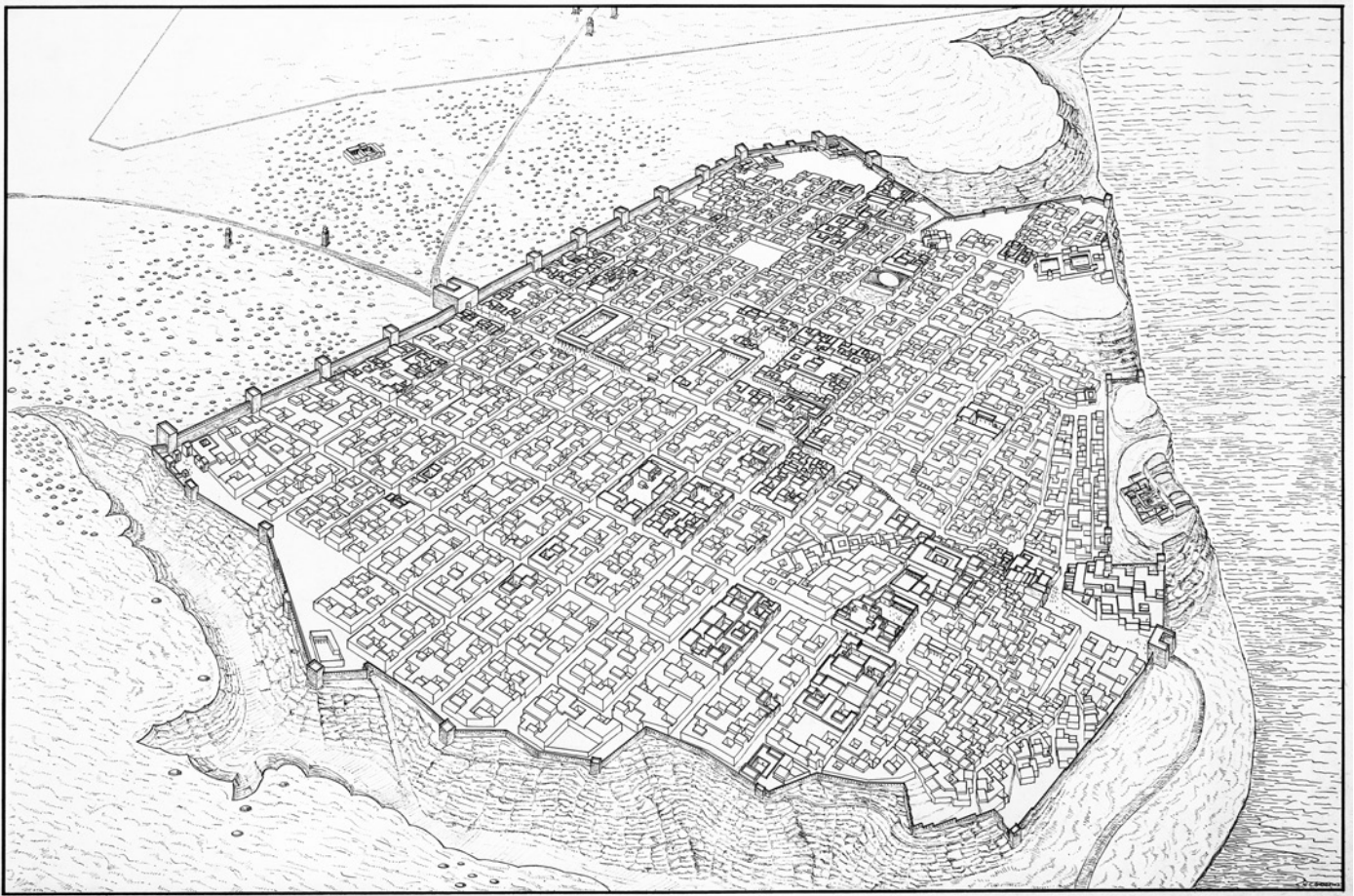


Fig. 1.6. A reconstruction of Dura in the Roman era from the SE, as it was understood in the mid-twentieth century, by N. C. Andrews. Known and excavated structures are picked out in heavier line and hatching. This fine drawing is nevertheless now known to contain inaccuracies, e.g. with respect to the military part of the inner wadi.



Fig. 1.7. The camp and horse lines of the British imperial Indian troops who revealed the identity of Dura-Europos in 1920. They were unwittingly bivouacked on the exercise ground of the Roman military base.

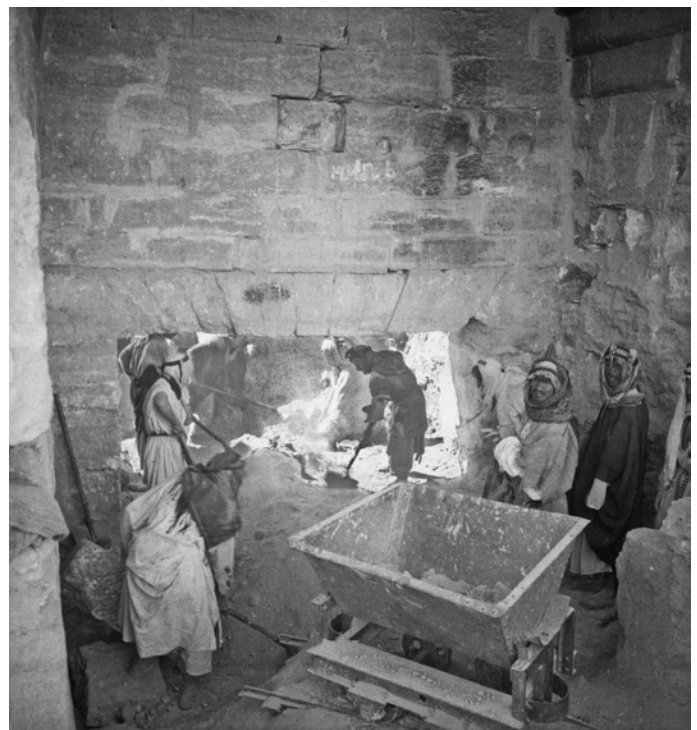


Fig. 1.8. Excavation technique: locally hired workmen and boys using shovels, baskets, and mining cars on rails: digging the middle gate of the Citadel.



Fig. 1.9. Franz Cumont (L) and Mikhail Rostovtzeff in the Mithraeum at Dura soon after its discovery.

so inadequately exploiting, the potential of the rich archaeological data they had recovered—and which often they did not fully publish. These limitations have coloured study of Dura ever since.

As we saw, Fergus Millar called for careful bottom-up reappraisal of the riches excavated from the site, to decide what we can really say about this ancient city of the Seleucid, Parthian, and Roman empires overlooking Mesopotamia (Millar 1998, 474). His analysis was very insightful, but did not fully recognize that such an effort was already underway, at the forefront of which was the modern Franco-Syrian Mission to the site (*la Mission Franco-Syrienne d'Europos-Doura*: MFSED), masterminded by Pierre Leriche (Fig. 1.10), with new fieldwork beginning in 1986 and continuing until incipient civil war in Syria brought a halt in 2011 (Leriche et al. 2011). After Cumont and Rostovtzeff, Leriche has been the most important single figure in the

exploration of Dura, through his leadership in reviving exploration of the site, through the team he created and with a series of Syrian co-directors led to continue research there, in the fieldwork opportunities he facilitated for other scholars including myself, and not least through his campaigning to conserve, protect, and present the remains.

The members of MFSED constituted part of a wider new generation of scholars researching Dura, including Lucinda Dirven, Ted Kaizer, Jennifer Baird, myself, and others. As a result of this revitalized research effort, in recent years extensive progress has been made on reappraising the city's civil society and economy. Notably, Parthian-era Dura is no longer seen as a 'caravan city' of the long-distance 'Silk-Road' trade in far Asiatic luxury goods (classically, Rostovtzeff 1932). Instead it is regarded as a centre of Hellenistic and then Arsacid regional governance, administration, manufacture, and commerce, which achieved considerable prosperity in

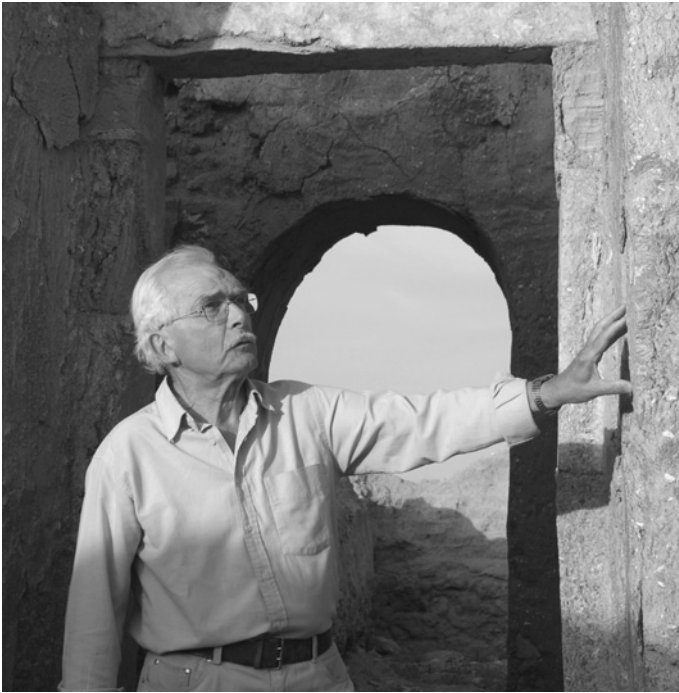


Fig. 1.10. Pierre Leriche in the House of Lysias in 2010.

the century preceding Roman takeover, not least through close trading relations with Palmyra (e.g. Dirven 1999; Kaizer 2017). It is timely for Dura's Roman era, and its imperial military presence in particular, to receive a similar degree of fresh attention.

The project primarily reported here was undertaken, then, in line with MFSED's overall objectives and Millar's call. Conducted in equal collaboration with MFSED and Yale University Art Gallery, custodian of the archive of the great Yale/French Academy excavations of 1928–37, it aims to review, consolidate, and publish a major aspect of the evidence from Dura-Europos: that relating to the Roman military base. It involved fieldwork undertaken at Dura between 2005 and 2010, and archive visits to Yale between 2006 and 2016. This is, then, a study of so-called 'legacy data' (p. 44); it is also a study of what might be termed 'legacy ideas'—reappraising early interpretations of the data now too often dismissed, forgotten, or ignored. As such, it offers an example of the still under-appreciated importance of archives and early publications, and the under-exploited potential of the material they hold.

Publishing this research has been given grim additional importance by the human and cultural catastrophe which engulfed Syria from 2011. Looting of Dura on an industrial scale has destroyed much of the evidence reported here and, worse, much more of the potential to make fresh discoveries has been lost forever (pp. 315–316). At the time of writing it remains to be seen what may survive of the fabric of the site; but the study of Dura-Europos continues on the basis

of the collections and records preserved elsewhere. Its testimony remains invaluable to multiple scholarly fields, and to wider understanding of the history of Syria.

What follows is a presentation of the archaeological evidence for Dura's military quarter, indeed at least a literal quarter of one of the world's great archaeological sites, presented in an integrated manner, and considering its articulation with the city as a whole. This of course has to be undertaken in relation to the textual evidence for the garrison which built and lived in it: Dura's corpus of military-related monumental inscriptions, less formal dipinti and graffiti, and parchments and papyri. I have necessarily conducted my own parallel review of this material, essential to the interpretation of the archaeological evidence—which reciprocally has fundamental implications for understanding the textual record. This is presented in Part III.

The subject matter of this volume, and the approach taken to it, constitute the intersection of several academic enterprises. Understanding the Roman base and garrison is crucial to Durene studies, themselves of fundamental importance to our picture of the pre-Islamic Middle East from Greco-Roman times to late antiquity. Dura is equally important to research on Rome's rich, vital, but under-researched eastern provinces. As the only well-explored example of a major class of Roman military site established under the Principate, especially common in the eastern empire—very different from the familiar 'playing-card forts' typical of Europe—study of Dura's urban base, and its associated garrison, is also of great significance to Roman military studies.

This report presents and analyses, then, a major subset of the structural archaeological remains of Dura, which were mostly published piecemeal (if published at all), and which subsequently have mostly been considered only partially, thematically, and often in isolation (e.g. temples, housing). Here they are examined articulated in space; indeed they are considered in four dimensions, as a living environment developing through time. In terms of methodology, this study of the military base offers an example of the potential of archaeologies of space and of movement.

As will be seen, the project also centrally concerns the role of the visual in archaeology. For much of the excavated area of Dura, the only archival data we possess are visual; photographs of areas, structures, paintings and graffiti, formal drawn plans and sketches. Work on this material, in tandem with exploration of the ancient built environment on the ground, its recording and analysis, was conducted fundamentally through visual means (viewing, drawing, photographing, plotting data), making visual representation as important as text for communicating project results—hence the framing of the book's structure in visual metaphors.

Another running theme of what follows is examination of the range of apparently contradictory understandings and interpretations of the Roman military presence and its impact on Dura, from the views of the original investigators of the

garrison and its base in the mid-twentieth century, particularly Rostovtzeff and Welles, to early twenty-first-century takes. It is notable that a considerable amount of recent discourse on Dura deals mainly with other recent literature, some not considering the views of the original expedition at all. This tendency exemplifies wider academic trends. Archaeology is a historical science, excavation comprising 'unrepeatable experiments', and much of the primary data on which modern research relies may, as in the case of Dura, have been collected generations ago. This volume emphasizes the continued value and research potential of such 'legacy data' from early projects—and also of early ideas arising from them. Too often students and physical-science-minded librarians may wrongly consider anything published more than ten or even five years before as out of date, to be disregarded and forgotten (Kiernan in press). Such a tendency is also observed among researchers. It is easy to assume that works composed in, here, the 1930s–1950s have been entirely superseded by subsequent scholarship, and may be ignored, except perhaps for their data content. In mining primary publications and field records of early projects for information, some explicitly treat the accompanying original interpretations and ideas merely as potential 'contaminants' to be removed and discarded in 'purifying' data for modern reanalysis. In other cases, the original investigators' interpretations are considered, but this can proceed little further than identifying biases or ideological shortcomings, taken to compromise and discredit their conclusions—which they might well do. Yet this can be to throw the baby out with the bathwater. Inevitably products of their own times, old books and papers may exhibit attitudes and assumptions which are to us uncomfortable or offensive, yet there could nevertheless still be merit in some of their approaches and interpretations which might constructively inform our own. This is the premise of many of the best of Stephen Jay Gould's fine essays on Natural History (from Gould 1977 to Gould 2002), which reconsidered the contributions of long-forgotten or even ridiculed early scientific figures. In the case of Dura, I argue that the writings of Rostovtzeff and Welles in particular, if tainted with the class and racial prejudices of their time and backgrounds, still contain valuable perspectives—which we might call 'legacy ideas'—notably regarding the potentially strongly negative impact of the Roman military on Dura. This is something which, in most recent discourse on the city, has been ignored or forgotten.

THE SIGNIFICANCE OF DURA-EUROPOS

Dura-Europos as a Window on the Hellenistic, Parthian, Roman, and Sasanian Middle East

Overlooking the Euphrates and Mesopotamia in eastern Syria (Fig. 1.11), Dura-Europos is often described as a desert

city, although as Pierre Leriche pointed out on my first visit to the site, it is actually on dry steppe (Fig. 1.4, Pl. V), and of course overlooks the wide, fertile plain of a great river (Pl. III). Its celebrated remains attest an extraordinary cultural congeries at this spot on the middle Euphrates, and has been called a 'crossroads of Antiquity' (Brody and Hoffman 2011).

Dura was the smallest of the three now-famous steppe cities which met their Nemesis during the third century AD, victims of the first great round of clashes between Rome and Sasanian Iran. It could not compete in size or power with Hatra to the NE or Palmyra to the W, nor, in part thanks to the poor quality of local building stone, could it seek to rival either in the architectural splendour of its public buildings. However, as a result of exceptional preservation of so many kinds of evidence—not just architecture and pottery but various things otherwise rarely found outside Egypt such as wall paintings, textiles, papyrus texts, and much more—in some respects Dura outshines those other cities, and still offers our most vivid window onto life, culture, and society in the later pre-Islamic Middle East. It therefore still constitutes a key data source for archaeologists, art historians, epigraphers, historians, and others. As the leading Dura scholar Pierre Leriche has observed, 'one cannot but stress...the importance of Dura-Europos for the general history of the Hellenistic, Parthian and Roman Near East. There is a before Dura-Europos, and an after Dura-Europos' (Leriche 2008, 204; translation SJ). To be sure, Millar has warned that the city's evidence may be unrepresentative (Millar 1993, 438): however, growing realization of the degree of regional diversity across the Greco-Roman and Partho-Sasanian worlds suggests no single site *could* be representative. The problem is not Dura but our comparative ignorance of other cities.

Dura's foundation represented implantation of Macedonian military power and Hellenistic culture in the Mesopotamian world, leading to profound interactions with the Semitic-speaking peoples of the region, and the Iranian empire of Arsacid Parthia which came to control it. Later the city also became home to Jewish and early Christian communities, which have especially fascinated modern scholars. These likely settled at Dura as a result of the city's annexation to the Roman empire, also bringing the most intrusive 'alien enclave' of all: a substantial force of imperial troops. There is evidence for soldiers and their activities at the city's main gate, around its walls, and at many points across the interior, but most *milites* (soldiers) were clearly cantoned in the northern part of town. This was transformed into a sprawling military base, complete with headquarters building, baths, amphitheatre, and large areas of accommodation.

The Roman military radically transformed the city's fabric and life. At some unknown date an emperor officially 'promoted' Dura from a provincial Greek *polis* to the status of Roman *colonia*, an honour by then increasingly debased by overuse, but an honour nonetheless. So, did the co-presence within the walls of contingents of the provincial army alongside the civil community constitute a happy, mutually

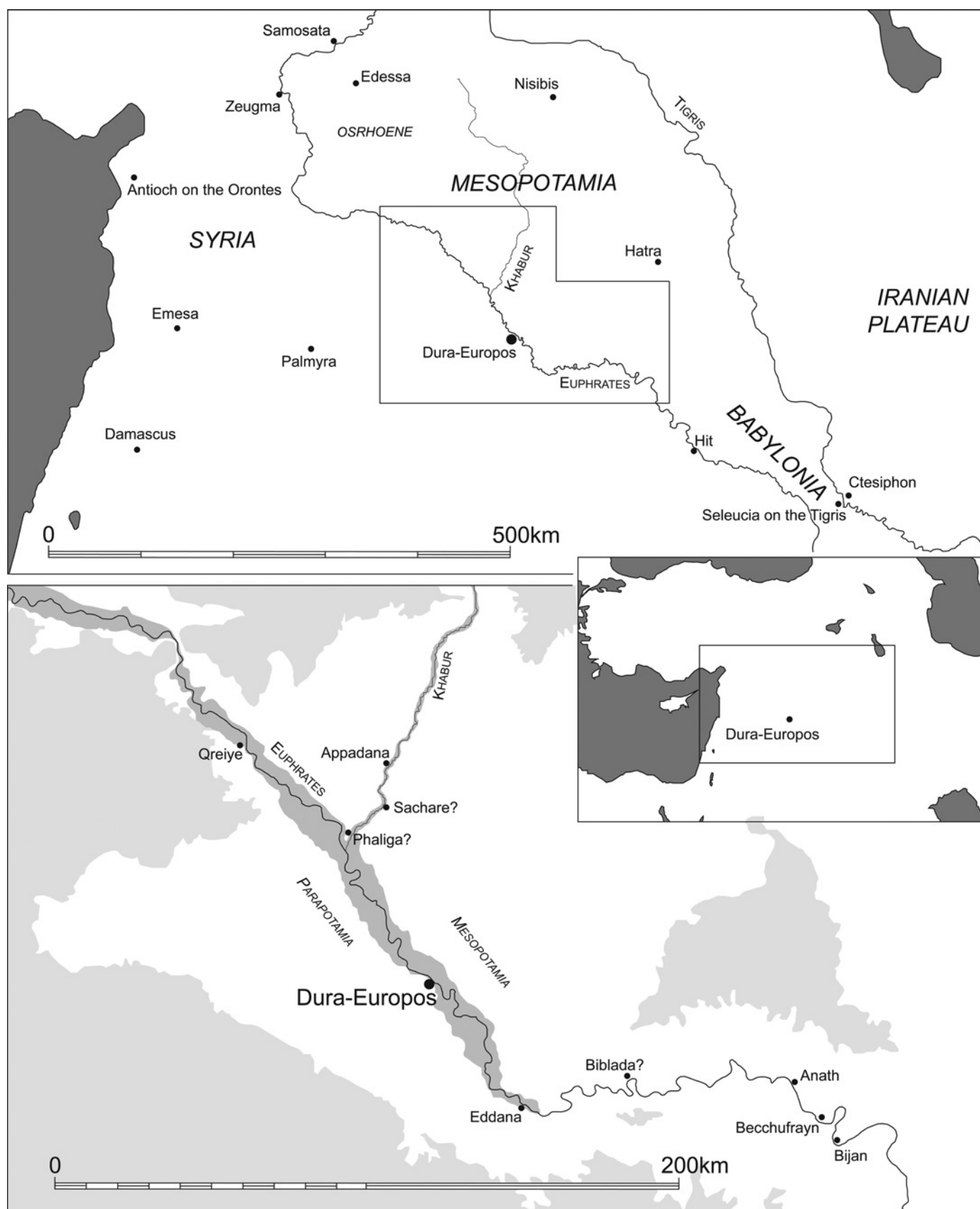


Fig. 1.11. The location of Dura-Europos on the Middle Euphrates, downstream of the confluence of the major tributary, the Khabur. Top, Dura in relation to important cities of the region. It lay roughly half-way between the great Hellenistic cities of Antioch and Seleucia on the Tigris, and the Parthian royal capital of Ctesiphon. It also lay between the other famous steppe cities of Palmyra and Hatra. Bottom, its setting adjacent to a wide and fertile stretch of the Euphrates valley and lower Khabur (darker grey). Along the rivers were dotted smaller settlements and Roman military stations mentioned in the texts (e.g. Becchufrayn and Appadana) and/or known archaeologically (e.g. Qreiyeh). Ground above 300m shown in lighter grey.

beneficial symbiosis? Or was the military, as Rostovtzeff and others have thought (p. 22), a deadly parasite, sucking the life out of the town? Understanding the role of the soldiers in the city is fundamental to a general picture of Dura in its final, and best-attested period. The imperial army became central to the life of the city. Even more certainly, it was central to the events which killed it.

The Macedonian colony of Europos was founded as a fortress by soldier-settlers and, while for most of its history the city into which the fortress grew was more concerned with local governance and commerce than war, Dura was also destined to end its life as a fortress, captured, sacked, and depopulated by the successors of the Arsacid Parthians, the powerful new Sasanid dynasty of Iran. Ironically it was the Roman defenders' massive earthwork engineering in anticipation of a siege, the prolonged and ferocious struggle which ensued when the Sasanians attacked, and subsequent abandonment of the site, which resulted in burial and survival of Dura's famous treasures. The aftermath of destruction, which left the site in a no-man's-land between empires, prevented significant reoccupation. It was preserved virtually undisturbed and, with no later buildings overlying it, accessible to archaeology.

Dura's testimony, then, remains vital to our understanding of the Middle East in Hellenistic, Parthian, Roman, and early Sasanian times. It is especially important for Roman provincial archaeology, as most of its excavated remains attest the city during its final, Roman-ruled phase. It also has other, even wider significance, for the history of art across the ancient world, starting with Breasted's *Oriental Forerunners of Byzantine Painting* (1924) and, as we saw, for investigating the early development of Judaism and Christianity. Not least, the antiquities of Dura are of vital importance to our understanding of the largest and most powerful institution of the Roman world: the imperial military.

Dura and the Study of the Roman Military

In the remains of the final siege of AD c.256, Dura has produced some of the most vivid physical testimony ever recovered for the nature of ancient warfare and martial material culture, pertaining to the nascent Sasanian empire as well as the Roman military. These remains, concentrated around the western defences of the city, have been extensively published elsewhere (e.g. Leriche 1993; James 2011b). Here the focus is on another dimension of Dura's military evidence, mostly revealed away from the walls. Primarily in the northern part of the city were discovered buildings and associated texts, images, and artefacts attesting the lives and activities of Dura's imperial garrison in the decades before the siege.

Providing the literal and figurative cutting edge of imperial power, the imperial military was always a key component of the Roman state, and a major factor in the dynamics of empire, political, social, and economic. It features prominently in the

surviving historical record while, through its prodigious building activities in the frontier provinces, it is as well known archaeologically, and as intensively researched, as any facet of the ancient world. Yet our knowledge of Rome's armies remains extremely uneven. We are especially ignorant of military affairs in the eastern provinces, knowing far less, for example, about Syria, keystone of Rome's grip on the East, than militarily peripheral Britain. This is less due to lack of surviving evidence than lack of research. Since most Roman military specialists have been European-based, the imbalance has been a function of sheer distance and modern politics making work in the East more difficult, sometimes (as in Syria itself since 2011) impossible.

Imbalance of attention has been exacerbated by inherited Orientalist prejudices: in antiquity, western Roman commentators often presented Rome's eastern armies as inferior, allegedly enervated by their stationing among, and increasing recruitment from, 'soft Greeks' and 'shifty Orientals', and not least due to their reported residence among the luxuries of cities rather than the invigoratingly Spartan conditions of frontier forts. In reality, the performance of Rome's eastern armies gives the lie to such calumnies (Wheeler, E. L. 1996). The Euphrates frontier was of enormous strategic importance during imperial times, and when in the third century Parthia was overthrown and replaced by the Sasanid dynasty which posed an existential threat to Rome's power in the East, it became the most critical of all. This was at a time when a number of Rome's emperors were themselves Syrians. The Roman East warrants much more attention than it has yet received.

To be sure, in recent decades the research effort on the eastern armies has stepped up, although it remains modest alongside that on the northern armies. By comparison with knowledge for European provinces like the Germanies, understanding of deployment of the large provincial army of Roman Syria remains sketchy, especially for the early period. We know the locations of the eastern legions at most times, but have no excavated plans of their bases to compare with those of Inchtuthil, Chester or Caerleon, Xanten or Vindonissa, Carnuntum or Lauriacum in Europe, or Lambaesis in North Africa. And for Syria we have little idea of where many auxiliary units were deployed, let alone full and detailed excavations of their stations to compare with Elginhaugh or the Lunt in Britain, Valkenburg in the Netherlands, many forts in Upper Germany, or even sites like Dionysias, Mons Claudianus, and Mons Porphyrites in Egypt. Excavations in Syria at sites like Tell el-Hajj (Krause et al. 1972; Bridel et al. 1974; Bridel and Stucky 1980) and Qreiyeh (Gschwind and Hasan 2008) have moved things forward, but in the East we are still exploring the basic features of what seems to be an archaeological picture very different from Europe.

One important reason that Roman military stations in Europe are so visible, but those of the East so obscure, is that the northern frontiers were established in regions still

unurbanized. In building first temporary winter quarters and then more lasting garrison stations, Roman armies were obliged to shift for themselves, creating customized installations on 'green-field' sites. In contrast, much of the East had long been urbanized. While there certainly were also green-field forts of playing-card or similar form in the East such as Tell el-Hajj and Qreiye, walled cities constituted ready-made communication nodes and foci of governance, offering accommodation, possessing established exchange and supply systems, and comprising strategic strongpoints in their own right. Historical texts and findspots of inscriptions reveal that, especially in the East, legions and other military units were often, sensibly enough, stationed at cities. However, at most of these sites centuries of subsequent occupation, and modern urban sprawl, have obscured the Roman military installations so completely that we often cannot even say whether the soldiers were billeted inside the city perimeter or at a suburban location. This major class of urban military stations remains largely unknown, in stark contrast to the hundreds of 'playing-card forts' excavated in Europe.

There are, however, a couple of eastern sites where such urban bases have been discovered and subjected to substantial excavation. One is at the oasis city of Palmyra in Syria where, after Aurelian's suppression of the Palmyrene state, an imperial base was built in the humbled and diminished city (Gawlikowski 1987a; 1987b; Baranski 1994). While they probably overlie an earlier Roman base, the visible remains are, however, a creation of the Tetrarchic period, and so belongs to the Dominate and the history of the reconstituted armies of the transformed later Roman or early Byzantine empire, after it had survived the third-century existential clash with Sasanian Iran and the northern 'barbarians'. With regard to the Principate, or so-called High Empire from Augustus to the Severi, so far the only eastern urban military base revealed in detail is that at Dura-Europos, destroyed in the unfolding 'third-century crisis'.

Equally, at Dura a major concentration of imperial soldiers was living, in some cases literally, next door to a substantial civilian population. Studying the nature and implications of this juxtaposition is fundamental to understanding Dura under Rome. More widely, the detail and quality of the data make Dura the best potential case study we have for investigating the important topic of Roman military: civilian dynamics anywhere in the empire. Scholarship no longer sees the imperial military just as a machine or simple instrument of imperial power, but also, since a seminal paper by MacMullen (1984), as a particular kind of society. Rome's troops were scattered across the empire in hundreds of deployments large and small, each of which also comprised a living community with a special, shared, military nature and identity, and collectively constituted an 'imagined community' of 'the soldiers' (*milites*: Anderson 1991; Goldsworthy and Haynes 1999; James 1999b). Understanding how these interacted with the provincial populations within which they were embedded is an important question.

ROMAN BASE AND GARRISON: KEY ASPECTS OF DURA'S LATER HISTORY

Since its excavation Dura has always been regarded as providing the major case where we can see the occupation of a whole quarter of a walled town by the army, and its physical reconstruction to serve the needs of the army.

Millar 1993, 132

Dura's military base was extensively investigated during the 1930s by the Yale/French Academy expedition, hereafter often abbreviated to 'Yale', a usage also followed by MFSED (e.g. Leriche 2010), partly justified by the fact that most of the work in question was conducted by American members of the team. They revealed most of its major buildings, including dedicated infrastructure (headquarters, amphitheatre, baths, a partial perimeter wall, the sprawling 'Palace of the *dux ripae*'), a range of new or commandeered temples, and substantial areas of military accommodation. The extent of exploration of such a well-preserved site, associated with exceptionally rich archaeological finds and an equally exceptional textual record (particularly the famous haul of military papyri) make Dura's military base of empire-wide significance. However, despite the degree to which it continues to be discussed in scholarship, its potential remains only partially and inadequately realized. It was never formally published as such, although provisional views did appear and preliminary accounts appeared for most of its components. Yet some elements were never published at all, while for others, although excavated and still visible on the ground in 2005, no documentation of any kind survives. Our evidence for the base today therefore resides in the limited publications, the primary site documentation preserved in the excavation archive at Yale University Art Gallery (YUAG: notes, finds registers, drawings, and photographs), in museum collections of artefacts from Dura, and in the remains which still survive at the site—or at least, did until the Syrian civil war.

Here the *status quo ante* for the study is presented. A rapid orientation tour of the base and related monuments as identified by the excavators is followed by a review of their evolving understandings and hypotheses about its layout, development, and chronology, although their various views were never consolidated into an agreed picture. Crucial to these interpretations was knowledge of—and, equally, assumptions about—the evolving composition and size of the garrison. This came primarily from analysis of Dura's archaeologically recovered inscriptions, dipinti, graffiti, and papyri. Both textual data and past interpretations were critically reviewed as part of the project. The results are presented in Part III.

A Preliminary Sketch of the Base as Excavated

Dura stood on the edge of a limestone-capped plateau, where the Euphrates had cut a deep valley, here lined with cliffs punctuated by steep wadis (Figs 1.4, 1.12, and 1.15). It was



Fig. 1.12. Mosaic of aerial photographs of Dura taken by the French Air Force in March 1936.

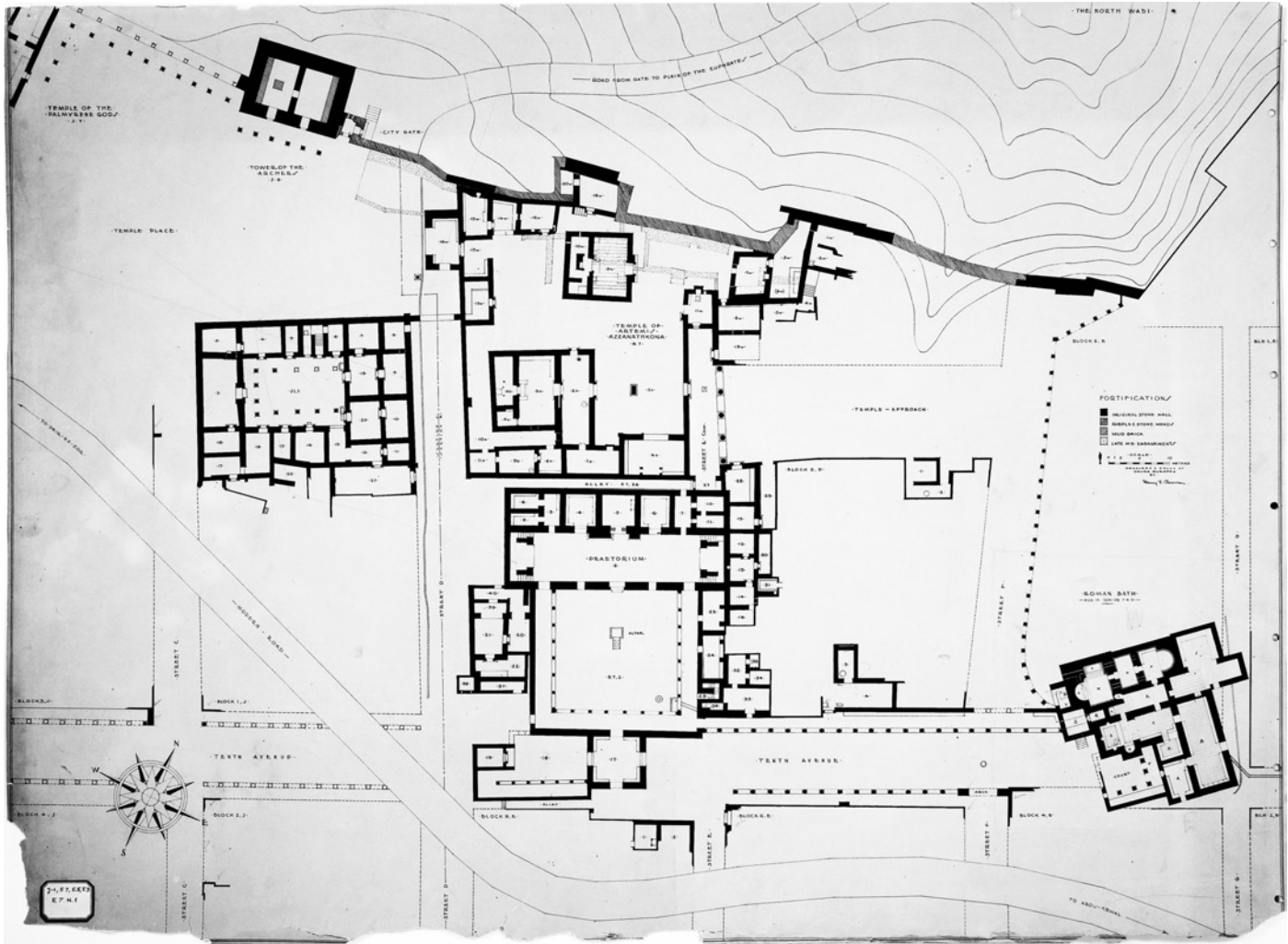


Fig. 1.13. Pearson's fifth-season central base plan, archive drawing E7 N.1, an example of an inked archival drawing prepared on site at Dura, but too finely detailed for publication at any normal page size.

established on a peninsula of plateau between two of these wadis, with Hellenistic stone defences completing its perimeter. It also incorporated a third wadi, which defined a narrow finger of plateau on which was built the original Hellenistic stronghold and nucleus of the city. The inner wadi also provided sheltered ground closer to river level, and offered practicable ascents to the large walled area on the plateau. The Roman military base was established in Dura's northern region.

When research began in the 1920s, in the northern part of the city several low mounds stood above the generally level interior. From one a large upstanding masonry wall projected (Fig. 5.13). It proved to be the cross-hall of a clearly recognizable Roman military headquarters building, which the excavators called the *praetorium* (now conventionally labelled *principia*). This discovery indicated the location of

the heart of the cantonment of a Roman garrison also being attested in texts and images, and led to clearance of much of the surrounding area (Figs 1.13 and 1.14).

West of the HQ the excavators subsequently revealed a military Mithraeum, and parallel with 8th St a large mud-brick wall cutting through several city blocks, marking the southern boundary of the base area (Fig. 5.1). The area of former civil town defined by this 'camp wall' to the S, the HQ building to the E, and the Hellenistic city defences to W and N, mostly comprised old civilian housing which had been converted to military accommodation through alteration, subdivision, and in some areas extension over existing roadways. In this zone other areas of formerly open ground were similarly built up, mostly using methods much more flimsy and irregular in plan than Dura's civil housing, some of that against the city wall standing two storeys high. This zone also

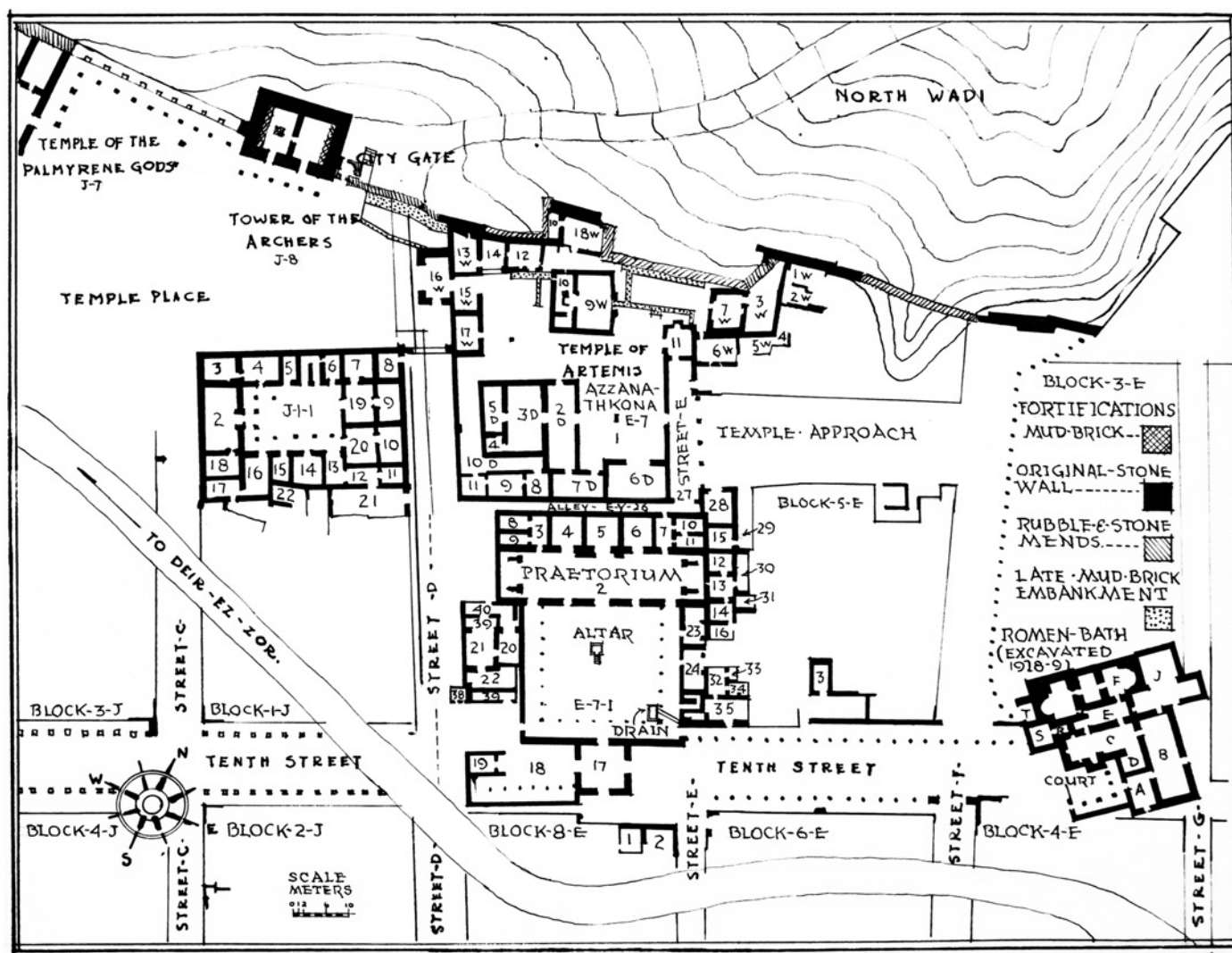


Fig. 1.14. Reduced tracing of Pearson's archive plan of the central base area, reproduced as *PR* 5, pl. III.

included the major 'Temple of Bêl' (or 'Temple of the Palmyrene Gods') in the corner of the city defences. Now marooned inside the base, it had remained in use, producing military texts and the Terentius painting. Across the street from a lane behind the *principia*, at the N end of block J1, lay a large courtyard house, its plan anomalous at Dura. It was interpreted as a commander's residence, and labelled 'House of the Prefect'.

The space behind the *principia* proved to contain another Parthian-era temple, dedicated to Artemis-Azzanathkona. This had at least in part been taken over by the soldiers; the famous cache of military papyri, from the archives of *cohors XX Palmyrenorum*, came from one of its rooms. The *principia* fronted onto the line of 10th St which, if traditional Roman rules of castrametation (laying out of military bases) had been followed, would have constituted a *via principalis* running right across the base area, and connecting the HQ with the sprawling 'Palace of the *dux ripae*' overlooking the

Euphrates. Indeed 10th St just E of the *principia* was found to have been widened and colonnaded, but the excavators were puzzled to discover that this did not continue to the W, as they had over-confidently reconstructed in their initial plan (Fig. 1.14). Even more oddly, to the E the grand street was entirely obstructed by a Roman bath house built on an angle to the city grid. This blocking, and a continuous masonry wall running S to a large commandeered house in E4 facing 8th St (Fig. 5.35), seemed to define an area enclosed on the E by the line of G St. Immediately S of the 8th St/G St junction in block F3 lay a small amphitheatre built by the garrison on the ruins of another Roman-style bath. The line of the 'camp wall' projected eastwards bisected the arena, suggesting F3 formed the corner of a defined military enclosure, albeit apparently with multiple entrances on B, E, F, and 8th Streets. The rest of the interior of this zone again apparently comprised civil housing converted to military accommodation.

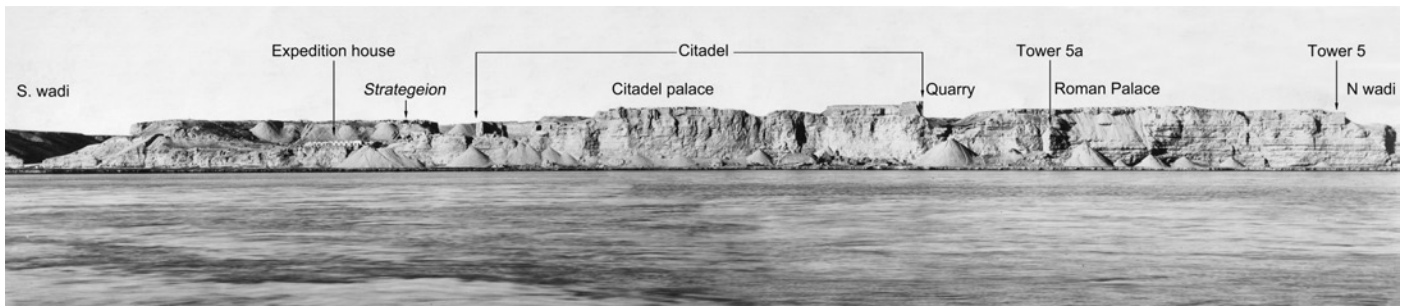


Fig. 1.15. Dura from across the Euphrates, showing the height of the cliffs and the difference in levels between plateau and lower town.

East of G St (Fig. 6.1), the plateau zone running to the river cliff was dominated by the sprawling ‘Palace of the *dux ripae*’ (here called the Roman Palace), which in plan and scale clearly resembled known residences of imperial officials. Thought by the excavators to have been the residence of an important regional commander, it was seen as part of the military infrastructure of Dura. To its W lay another temple, ascribed by the excavators to the Roman military cult of Jupiter Dolichenus. N of this lay yet another sanctuary, of unknown dedication (the ‘X9’ temple). Around the ‘Dolicheneum’ lay further irregular military housing. All this suggests that the area from G St to the Palace was also part of the military base zone. The corner of plateau to its SE probably was too, as the military also took over the wadi below.

The 8th St entrance to the NW base area opened towards a key junction, where 8th St met the great H St running up from the city centre, and the road running down into the larger northern branch of the inner wadi (Plate XXII). This led to the lower town, the (now lost, but clearly major) River Gate, and so to the Euphrates, its rich plain, and the road to Babylonia. More immediately it led down to a side street accessing the N door of the old Hellenistic Citadel, and the fairly flat wadi floor in its shadow. An early discovery at the N end of the wadi floor was another sanctuary, the ‘Temple of the Roman Archers’, an inscription recording its building by imperial troops on the occasion of the enlarging of the *campus* (military exercise ground). The excavators reasonably concluded that the wadi floor in front of this temple comprised the *campus*, which was therefore part of the area requisitioned by the Roman military. The Citadel itself (Fig. 1.15), already ruinous in Parthian times, was not deemed part of the military base area.

It became clear that other structures elsewhere in the city were taken over by the garrison, including individual dwellings in the civil zone, e.g. the ‘House of the Roman Scribes’ in L7. The Yale team also considered that two other baths in the civil town were built by the garrison, in M7 near the Palmyrene Gate, and in C3 in the lower town near the River Gate.

The excavators concluded, then, that the military base occupied a large area of town: Rostovtzeff assessed it as a literal quarter of the intramural area (Rostovtzeff 1938, 26).

However, as we will see, there is evidence that it was significantly larger even than the excavators realized.

Excavators’ Understandings of Base Development and Chronology

Dura’s original investigators never worked up their developing understandings of the military base into a fully coherent and detailed account of its nature and history. However, a number of discussions and briefer comments are scattered through their publications. Within the *Preliminary Reports*, an initial outline was published in the account of the fifth season, when the base was first identified as such. Further comment accompanied descriptions of additional elements excavated in subsequent seasons. Just as the expedition ended, Rostovtzeff published an account of the base in his *Dura-Europos and its Art* (Rostovtzeff 1938). This remains the most significant and influential statement to emanate from the expedition itself about the base, the garrison, and their impact. Scholars working to publish the excavations after World War II also made some further refinements to Rostovtzeff’s picture.

More recent commentaries on the base have largely relied on, while being more or less critical of, these accounts. Because MFSED was from the outset focused more towards the early development of the town, little additional work was conducted on the base prior to the present project, which was therefore largely picking up from where the Yale/French Academy project had left off.

From the moment of identification of the site in 1920, the Terentius painting demonstrated the presence of Roman troops in the city. Further epigraphic information was found by Cumont and more turned up early in the Yale/French Academy expedition, during excavation in the Palmyrene Gate and then the ‘Temple of the Roman Archers’ in the shadow of the Citadel. That there was a formal military establishment in the northern part of the city, around where the Terentius painting had been discovered, became apparent during the fifth season of 1931–2 with excavation of the ‘*praetorium*’, the Temple of Azzanathkona with

its remarkable military papyri, and the 'House of the Commandant' in J1.

Initial interpretations of the development of the base were provided by Hopkins and Rowell in their account of the 'praetorium' (*principia*), published in 1934. The earlier discovery of the A1 Temple of the Roman Archers and its *campus adampliato* inscription led them to suggest that 'in general the encampment of the soldiers was originally along the Citadel wall' (PR 5, 228–9). They argued that a significant garrison was sent in under Commodus, attested by an inscription found in the Palmyrene Gate (PR 1, 42), and that it was cantoned in 'the space west of the Citadel [i.e. the wadi floor in front of the site of the Temple of the Roman Archers], a strategic position because of its proximity to the river gate' (PR 5, 229).

Subsequently, they thought, the soldiers moved to the plateau. 'Our excavations revealed that the Romans, probably at the beginning of the third century, had taken over the north-west corner of the city for the encampment of their troops. The Temple of the Palmyrene Gods [Bêl] and the Temple of Azzanathkona had long been established in this corner of the walls; otherwise, apparently, the quarter was little developed. Under the Romans, a bath was constructed at the corner of Tenth and G Streets [i.e. the E3 bath]. Probably at the same time between Streets D and E, and between Tenth Street and the Temple of Azzanathkona, the [*principia* building] was erected' (PR 5, 207). This, seen as a seminal event, was dated epigraphically to 211–12 (PR 5, 221–3, inscription no. 558; 223–4, inscription no. 559; Rostovtzeff 1934; Edwell 2008, 122). Later in their *principia* account, Hopkins and Rowell backdated development in the NW somewhat: 'Judging from the dedication to Septimius Severus in 194 [i.e. Inscription 561 in the Temple of Azzanathkona] the headquarters of the camp had already been moved at this date to the northwest angle of the city' (PR 5, 229). They concluded that: 'In the time of Severus when a larger force was concentrated in the town, the north-west corner was chosen for the camp since this little-built quarter of the city offered more room. In Caracalla's time a permanent camp was decided upon and the [*principia*] built' (PR 5, 229).

Hopkins and Rowell therefore envisaged three phases of material development of the Roman military presence: a first, makeshift auxiliary camp in the wadi under the Citadel; removal of this cantonment to a somewhat larger area in the NW plateau zone early in the reign of Severus, although this, too, was still a makeshift, temporary affair; and finally conversion of the NW area into a 'real' permanent camp only under Caracalla. We will return to the central, and distorting, emphasis given to construction of the *principia* building. At the time this account was penned, the Mithraeum, with its evidence of an earlier Palmyrene military presence in the NW corner of the city, had not yet been found.

In the sixth season (1932–3, published in 1936) Brown identified an apparent E boundary to the supposedly

Caracallan formalized cantonment area. 'Some attempt, at least, was made to shut off the newly enlarged and systematized camp of occupation from the rest of the city. A rubble wall about 0.90m thick was run from the north side of the northeast corner buttress of [the house forming the south half of block] E4 to the southeast corner of bath E3. It... evidently delimited the Roman camp on the east' (PR 6, 30). Brown also identified two periods of Roman military occupation, the first antedating the Severan/Caracallan building campaign (PR 6, 30, 502).

In 1934, during the seventh season, the Mithraeum was discovered on the W side of the base area, at the heart of which two inscriptions attested the first Roman-era garrison, of Palmyrene archers, by AD 169 (PR 7/8, 83–4, nos. 845–6). This implied a Roman-inspired military presence, if not yet imperial troops, in the NW quarter of the city from the outset of imperial control.

In his brief account of the eighth season (1934–5), du Mesnil recorded Brown's developing thinking resulting from further discoveries, notably the S boundary of the base apparently being defined by the mud-brick 'camp wall' found running from the western defences parallel with, and S of, 8th St across four city blocks. 'Within this boundary, all housing appeared to have been expropriated and converted into barracks or stables. On the east side, the Roman quarter was closed by the amphitheatre, baths and a boundary wall. Two streets were left free; one led to the *Praetorium* [E St], the other [F St] to the baths, passing under a triumphal arch. Nearby, a displaced Latin inscription was a dedication for the salvation of Caracalla and Geta, emperors (the second name obliterated). On the same stone, another text held a consular date corresponding to the time of the death of Heliogabalus. So it seems that the wall of the inner enclosure was built by the soldiers of the garrison, along with the camp and praetorium at the time of Caracalla and Geta' (du Mesnil 1935, 276–7: translation SJ). This highly dubious epigraphic dating of the 'camp wall' is challenged below (p. 135), but illustrates how the excavators tended to ascribe Roman military building and conversion work to the late Severan/Caracallan period almost by default. The A1 Temple of the Roman Archers in the wadi and the associated military *campus* in the shadow of the Citadel were not further discussed, apparently not seen as parts of the military base as such.

By the eighth season, then, Hopkins, Rowell, and Brown had established the outline of an apparently simple picture, of a well-defined military cantonment on the NW corner of the city. In the ninth, discovery E of the apparent camp boundary on G St of the 'Dolicheneum', interpreted as a Roman military construction with more military-converted housing around it, and the great 'Palace of the *dux ripae*' sprawling as far as the river cliff, showed the picture was more complicated. These remains would not see preliminary publication until after World War II, But it was with

knowledge of the latest discoveries that Rostovtzeff penned the expedition's most comprehensive and influential treatment of the Roman military district.

Rostovtzeff's 1938 portrayal of the base was embedded within his general 'sketch of the history and topography of Dura-Europos and its art', originally penned as a series of lectures, delivered in London in May 1937 and in Paris in June, 'printed...with slight changes and in somewhat expanded form' the following year (Rostovtzeff 1938, vii). He had only just returned from his final visit to Dura in April, towards the end of the tenth and last field season (Rostovtzeff 1937, 195). His lecture texts were likely drafted at Dura and on the journey back to Europe, explaining the signs they bear of hasty composition, faulty memory, and failure to check already-published details leading to serious errors, uncorrected in the publication. He perhaps prioritized prompt dissemination of what was only ever intended as an interim statement (Rostovtzeff 1938, vii–viii). He was aware that it could be considered premature to compose an overview volume; however, he rightly argued that it would take a long time for the full publication to appear. The *Preliminary Reports* were still being written (that for the seventh and eighth seasons appeared in 1939, three volumes covering the ninth were published 1946–52, while that for the tenth would never appear). Work was yet to begin on the *Final Report* series, something likely to take decades to complete, and he was already ageing. Consequently, Rostovtzeff felt justified in publishing this 'short summary' aimed at 'students of ancient history and archaeology and...general readers'. We should be thankful that, warts and all, he did present his knowledge and ideas even in preliminary form and did not, as too many archaeologists have done, take them to the grave. It was not Rostovtzeff's fault that an avowedly provisional treatment was, in the case of the military base besides much else, never replaced by a more considered account. The looming World War was primarily responsible for that.

Archived documents (Susan Matheson, pers. comm.) indicate that a definitive treatment of the base was intended to form part of a projected *Final Report 2, Architecture and Town Planning*, of the series outlined opposite the title page of the textiles volume *FR 4.2*, but it was never started. *Faute de mieux*, then, the sketch Rostovtzeff presented in his 1938 '*opusculum*' has had a much longer life and, penned by the mastermind of the Dura project and so carrying his great scholarly authority, has been accorded more weight than he intended.

In his book, Rostovtzeff actually presented two overlapping accounts of garrison and base, in his first lecture on the 'Importance and History of Dura-Europos' (1938, 24–8), and his second on 'Its Topography and Buildings' (1938, 50–3). These slightly contradict and do not represent a single coherent picture.

In his first lecture, Rostovtzeff stated that Dura was not militarily important to Rome under Marcus or Commodus,

its garrison initially comprising a 'Palmyrene mounted police corps', a body of archers supplied by Rome's ally who he thought (probably erroneously) had been based in Dura since late Parthian times. These built the early Mithraeum in the NW corner of the city. They were later supplemented by a small Roman garrison probably comprising 'one auxiliary cohort of mounted archers', *cohors II Ulpia equitata*, apparently quingenary (Rostovtzeff 1938, 24). Rostovtzeff did not envisage any clearly defined military base area at all until the third century AD, merely noting that: 'It is possible that some buildings in the northern part of the city were used for the needs of the Roman garrison and that the main gate of the city [presumably the Palmyrene Gate] was guarded by a detachment', while noting that 'several rooms in the court of [the temple of Azzanathkona were] used for military purposes' (Rostovtzeff 1938, 24).

Crucially, he presented creation of the formalized military base as a sudden and dramatic transformation of Dura's urban fabric. 'A great change came with Septimius Severus and Caracalla... Some inscriptions show that the main camp dates from the very last years of Severus and the early years of Caracalla' when new formations arrived to join the garrison, including legionary vexillations while 'about this time' *cohors XX Palmyrenorum* 'probably took the place of or was added to the cohort IIInd Ulpia' (Rostovtzeff 1938, 26, 51). Rostovtzeff believed the milliary-sized *cohors XX* was newly raised by Severus as, in his (mistaken) view, part of that emperor putting an end to Palmyrene military autonomy. He did not make any connection between the apparent arrival of *cohors XX* and the disappearance of the Palmyrene archers before this date, which he inferred from the rebuilding of the Mithraeum by legionaries (Rostovtzeff 1938, 26).

'For the needs of the enlarged garrison the northern part of the city was transformed into a regular military camp. A monumental praetorium... formed its centre' (Rostovtzeff 1938, 24). The motivation for this build-up was to make Dura-Europos a forward base for intended operations against Parthia (Rostovtzeff 1938, 26–7). Rostovtzeff concluded that almost everything in the base was converted or constructed in these few years around 210, including the J1-A 'commandant's house', 'Several [sic] other houses...[which were] used—after remodelling—as barracks for the soldiers' who also built two baths, with a third 'Parthian bath' converted too, while 'in its vicinity a modest *amphitheatrum castrense* was built' (Rostovtzeff 1938, 25). However, this is garbled: his 'Parthian bath' is the F3 facility, the second would be the E3 bath, but there is no third in the area unless, as is likely, he was thinking of the cliff-edge *thermae*, discovered early in the expedition; but by the time he wrote that establishment had been shown to belong to the 'Palace of the *dux*'. Further, his text implies that the amphitheatre and 'Parthian' bath were close to each other and contemporary, whereas in fact the former overlay the ruinous latter. Finally, 'several military

temples were constructed by the soldiers', including the later Mithraeum and 'Dolicheneum' (Rostovtzeff 1938, 25).

He regretted that there had been no time to excavate the whole camp, but was 'fairly certain that about one-fourth of the city of Dura was taken from its inhabitants and became a military camp, separated from the rest of the city by a brick wall. The Roman soldiers were in complete possession of this area, and no civilians remained in the houses that had formerly belonged to them and were now confiscated [sic] by the Roman military administration' (Rostovtzeff 1938, 26, reiterated almost verbatim at 51).

There were signs that the third-century base was not large enough to house the whole garrison, as some soldiers were also 'billeted in private houses outside the camp. Moreover, the main gate of the city and the neighbouring area formed a small subsidiary Roman camp', indicated by inscriptions in the area (Rostovtzeff 1938, 25). He suggested the 'office' of this putative (and spurious) 'subsidiary camp' was the House of the Scribes in L7 (Rostovtzeff 1938, 26).

With the rise of the Sasanians, Rome was thrown onto the defensive. Rostovtzeff thought that the Dura base was in consequence further developed under Severus Alexander or soon after, when 'a special military command was created on the bank (*ripa*) of the Euphrates... A *dux* (military commander independent from the governor of Syria) was appointed to coordinate the operations of the Roman detachments stationed in the many fortified posts of this *limes*' (Rostovtzeff 1938, 27). He identified the Roman Palace as the 'ducal *praetorium*' (Rostovtzeff 1938, 28). 'At the same time the garrison of Dura was again reinforced. Several new auxiliary corps are mentioned in inscriptions' found near the Roman Palace (Rostovtzeff 1938, 28). He was evidently referring to the altars from the Dolicheneum and more military housing found adjacent to that temple. These discoveries were, like the Palace, regarded as attesting further, post-Caracallan expansion of garrison and base alongside creation of the ducate. These arrangements then pertained until the final siege.

Puzzlingly, in this sketch of the base Rostovtzeff almost entirely ignored the inner wadi zone, even though its military role was clearly indicated by the A1 Temple of the Roman Archers, nowhere specifically mentioned (although it features on his city plan: Rostovtzeff 1938, fig. 6, no. 16). Indeed, he appears to have forgotten about it.

In his second lecture, Rostovtzeff painted a starker picture of physical devastation suddenly wrought on the city by creation of the formalized military base. 'In the northern part of this expropriated area [which his subsequent description reveals he equated to the zone N of 10th St] the pre-existing buildings were razed to the ground' to create a 'levelled area' for building (Rostovtzeff 1938, 51–2). 'The only exceptions were the venerable temples of Artemis Azzanathkona and of Zeus-Bel in the north-western corner of the city. Even so, several rooms round the court of the

temple of Artemis were occupied by military offices, while the temple of Bel was probably spared only because Bel was the military protector of Dura and a deity much revered by the Palmyrenes and the Syrians in general' (Rostovtzeff 1938, 51). 'But the other temples in this part of Dura were not so fortunate. We know from inscriptions of at least one that suffered the fate of the private houses, i.e. was razed to the ground' (Rostovtzeff 1938, 52). He was correct that an earlier temple was destroyed, or rather, as we will see, drastically reconfigured, to make way for the *principia*, and another in X9 was also deconsecrated, although at an unknown date. However, overall this picture of mass demolition of houses and most temples in the N part of the city was a gross exaggeration. Elsewhere, Rostovtzeff correctly noted that much of the area of the Roman base was still open ground on takeover (Rostovtzeff 1938, 55), while most existing civilian buildings were actually retained and converted to military use.

'On the levelled area [sic] expropriated by the Romans sprang up the usual buildings of a Roman camp. The majestic *praetorium* stood in the centre. Across the front of it ran a colonnaded street with a triumphal arch [the F/10th St arch]. West of the *praetorium* stood the house of one of the high officers of the garrison, a palatial building previously the property of one of the rich citizens [J1-A house]. Beyond this officer's house, between it and the temple of Bel, extended the *campus exercitatorius* or Campus Martius' (Rostovtzeff 1938, 52). The plaza in front of the Temple of Bel could have served as a military *campus*, although bizarrely Rostovtzeff ignored specific epigraphic evidence of one in the wadi. 'On the other side of the *praetorium* a bath was erected' (Rostovtzeff 1938, 52), i.e. the E3 bath, here again presented as a foundation contemporaneous with the *principia*.

'To the east, the camp extended probably as far as the Citadel' (Rostovtzeff 1938, 52). As Rostovtzeff considered the Citadel ruinous and abandoned, he apparently meant the base also came to include the plateau between G St and the cliff edge overlooking river and Citadel, an area 'only part of [which] has been excavated. We found there a fine bath [i.e. the Roman Palace bath], the aforementioned temple of Jupiter Dolichenus..., the surrounding barracks, and the impressive official residence of the *dux ripae*' (Rostovtzeff 1938, 52).

'The southern part of the area excavated... [i.e. from 10th St to 8th St and the buildings on its S side] had been treated in a different way. Here the private houses had not been destroyed but transformed into barracks; and, for the use of the soldiers housed in them, a bath of the Parthian period had been modernized and reconstructed, and a small *amphitheatrum castrense* had been built' (Rostovtzeff 1938, 52, repeating his error of thinking the F3 bath and amphitheatre existed contemporaneously).

To summarize, Rostovtzeff had no clear idea of the nature of the cantonment for the late second-century garrison, but

thought that at the end of the reign of Severus, and during the early years of Caracalla, the entire N part of the plateau was rapidly and radically transformed into a more regular military base, as a result of massive expansion of the garrison. This subsequently expanded to fill the space between 'desert wall' and river cliff where stood the 'Palace of the *dux*'. None of the excavators thought that the ruinous Citadel or even the wadi-floor military *campus* area formed part of the base, although Rostovtzeff mooted a strong supplementary military presence around the Palmyrene gate—which texts attest, but it hardly constitutes a 'subsidiary camp'.

Following the hiatus of World War II, which diverted most of the project team to more pressing duties, in 1952 Gilliam published an updated summary understanding of the base in interpreting the siting of the 'Palace of the *dux ripae*', and the history of the 'Dolicheneum' (PR 9.3, 69–70, 130). He presented the 'Roman camp... as organised and laid out in the time of Severus and Caracalla...' as including the '*praetorium*', 'the house of the commander or commanders of the garrison in J1', 'the offices of the *Cohors XX Palmyrenorum* in the Temple of Artemis Azzanathkona', 'barracks in E8', the amphitheatre, and E3 bath. This constituted a zone 'at least partially separated from the rest of the city by a mud brick wall, 1.65m wide', traced from the city wall for four blocks with a gate on B St (PR 9.3, 69). Later in the report he listed the available epigraphic evidence for particular structures which formed the grounds for following Rostovtzeff in seeing the base as a quite sudden creation of late Severan/Caracallan date. He cited dated inscriptions for the Middle Mithraeum (209–11), the *principia* (c.211–12) and the amphitheatre (216), asserted a date of 211–12 for the 'camp wall', based on a then-unpublished inscription, and further opined that 'it is highly probable that a number of other buildings excavated were erected ca. A.D. 211' (PR 9.3, 130 n. 1).

Gilliam labelled 10th St 'the *via principalis* of the camp', noting that, while it 'took the form of a wide colonnaded *platea* in front of the principal military buildings', it was blocked to the E by the E3 bath. This prevented direct movement between the '*praetorium*' and 'Palace of the *dux*'; 'We have... the paradox that this, the largest single building in the city, is placed in the general area of the Roman camp, but is deliberately cut off from direct communication with it' (PR 9.3, 69–70). This paradox was not further discussed or resolved, although on his own dating it was largely explicable because the E3 bath was considered (correctly) to be earlier than the Palace; on his own interpretation, the Palace was built as a result of a new command structure only created in response to events post-dating the reign of Caracalla. If the reasons for blocking 10th St were not discussed, it was anyway a *fait accompli* before the Palace was dreamt of.

(It should be noted that Gilliam also referred to work by his wife Elizabeth H. Gilliam, who had completed an unpublished MA thesis on the military base: Gilliam, E. H. 1939,

mentioned in PR 9.3, 130 n. 2. However, this was simply a summary adding nothing to the published accounts.)

In 1955, Welles published the inscription which Gilliam had claimed dated the 'camp wall' to 211–12 (Frye et al. 1955, 128 n. 1, 161–2, no. 59). In fact, this obscure and partially erased text was not found on or by the wall at all, but some distance away in block E8. Gilliam read it as referring to '100 feet' of something, taken to be the camp wall—a very tenuous argument. Further, this reading is anyway uncertain, and the date equally so, in Welles' view 217 being more likely.

The most detailed discussion of the composition of the Roman garrison, which also more incidentally considered the base, was again penned by Gilliam, in his overview of the Roman army in Dura in the *Final Report* on the parchment and papyri published in 1959 (FR 5.1, 21–6). Like Rostovtzeff and Welles, Gilliam saw the history of the garrison, and so its accommodation, as divided into the periods before and after c.208, although he envisaged the latter as subdivided into two, i.e. 208–17 and 217–56. He saw the Palmyrene archers present from the 160s as Palmyrene municipal militia, serving as Roman '*symmachiarii*', supplemented late in the reign of Commodus by the regular *cohortes II Ulpia equitata*. In his view the garrison's camp, 'which eventually occupied the north-western quarter of the city, seems to have remained modest in size and in its buildings during the first forty years or so of the Roman period. Around 209–216, however, its area was probably considerably increased, and in any event a number of buildings were either remodelled or erected. This activity doubtless reflected the arrival of new units', with *cohortes XX Palmyrenorum* first attested in 208 and legionary vexillations attested in 209–11 (FR 5.1, 24–5). Gilliam saw completion of the amphitheatre in 216 as concluding this episode of radical change. The subsequent period, lasting until the final siege, is less well attested epigraphically, leaving him only to conclude that the 'fairly large' garrison installed c.210 was maintained in size, even if its composition varied somewhat; at least there was no evidence that the camp got any smaller (FR 5.1, 25).

The final account of the base penned by a member of the Yale project team was that by Perkins in her *Art of Dura-Europos* (Perkins 1973, 25–8). This was largely a restatement of the description set out by Rostovtzeff, and contains some errors, e.g. anachronistically seeing the garrison expansion around 210 as a reaction to the rise of the Sasanians (Perkins 1973, 6), and taking *campus* to mean 'camp'/base rather than parade/training ground (1973, 27). Nevertheless, it contains details not published elsewhere. Like her predecessors, Perkins saw the years around 210 as marking a major change, when an ill-defined pre-existing 'military area... was turned into a more proper military camp (*castra stativa*). Street 10, which became the *via principalis* of the camp, was provided with colonnades for at least part of its length' (Perkins 1973, 25). She saw this construction programme as having

a drastic effect on the fabric of the N quarter, following Rostovtzeff in claiming the area N of 10th St was largely razed for the new *principia* etc. (Perkins 1973, 25–6). Perkins believed the E3 bath was constructed in this period, replacing the old bath in F3, over which the amphitheatre was built (Perkins 1973, 27).

In summary, the picture received from the Yale/French Academy project team, and especially the pen of Rostovtzeff, envisaged very limited, localized, and ad hoc military alterations and additions to the city until the years around 210, which supposedly saw a sudden dramatic increase in the size of the Roman garrison, resulting in swift and drastic impact on the fabric of the city—and its population.

This allegedly decisive late Severan/early Caracallan episode of Roman garrison expansion and base construction has since been, and still is, widely accepted (e.g. Francis 1975, 429; Dabrowa 1981, 63–4; Sartre 2005, 138, 195; Leriche et al. 2011, 26–7, 35; Lenoir 2011, 59; although I have previously expressed some doubt about this: James 2004, 17). Consequently, the first half of the nominally Roman period (i.e. c.165–c.210) has been seen as characterized by very light-touch Roman intervention, even proxy control via a Palmyrene protectorate (Luther 2004; Kaizer 2017, 67–8). Significant change under Rome has been envisaged to come only with supposed installation of a substantial garrison in the third century (Baird 2012a, 45; 2014, 60). A central conclusion of the present study is that these understandings are fundamentally wrong, which will require substantial rethinking of the course and nature of the later history of Dura.

Evolving Views on Impact of Garrison and Base

From the time of Septimius Severus and Caracalla the city consisted of two parts: the old city and the brand-new Roman camp with its population of Roman officers and soldiers. These were mostly natives of the Syrian provinces of Rome. Nevertheless they were a foreign body in the city... They were the masters, who had no consideration for the population of the city and who lived their own peculiar life, the life of the military camp... For the first time in its life Dura-Europos ceased to be a body politic, a more or less autonomous part of the State to which it belonged and whose interests were its own interests... to become instead a mere garrison town, whose main duty was to house and feed the Roman soldiers.

Rostovtzeff 1938, 50

So large and lasting a Roman military presence manifestly affected the lives of Dura's civil population, just as it transformed so much of the urban fabric. It was Rostovtzeff who, in his influential 1938 book, set an enduring, baleful tone for understanding the impact of the military presence long before the catastrophic 250s (Rostovtzeff 1938). His gloomy line was substantially followed by those who sustained the

effort to publish the excavations and other commentators in the following decades.

Rostovtzeff starkly judged that Dura was 'already dying before the Sasanians killed it' (Rostovtzeff 1938, 31), laying the blame firmly at the door of the Roman military. To him, Dura was an outpost of Hellenistic culture which, under light and benign Arsacid Parthian rule before Roman annexation, had prospered through the caravan trade. As we saw, Rostovtzeff envisaged a modest Roman auxiliary presence until c.208–10, when there was a sudden and traumatic upheaval to the life of the city. Almost overnight, he believed, the garrison was massively increased in size and changed in composition, with arrival of several large new contingents, now including legionaries. These proceeded to evict all inhabitants from a large area, within which they then walled themselves off; but even this did not provide enough space for them. While civilians were now excluded from the new camp, yet more soldiers were billeted on the civil population. He saw this garrison as a parasitic implantation which, through heavy-handed impositions on the civil population if not outright brutality, was sucking away the lifeblood of the town (Rostovtzeff 1938, 30–1).

Subsequent publications by members of the Dura team substantially followed Rostovtzeff's line. Welles, too, considered the garrison expansion sudden and traumatic: 'The northern quarter was commandeered completely: its original inhabitants were evicted [sic]... To a lesser extent, though certainly much more than we at present can know, the rest of the city was overrun [sic]' by the soldiers (Welles 1951, 258).

With regard to physical isolation of base and garrison, Perkins was more explicit than most, asserting that: 'The entire camp area was separated from the rest of the city by a wall' running E from the city defences near Tower 21. 'It has been traced for four blocks and presumably bent southward to go round the amphitheatre, extending to the edge of the interior ravine or to the old Citadel wall' (Perkins 1973, 28; this was wrong). On the other hand, she took a less doom-laden view of the Roman occupation than Rostovtzeff, seeing the third century as a period of 'Romanization', civil as well as military, visible in appearance of street colonnades echoing those of other Roman cities like Gerasa (Perkins 1973, 24). Earlier, Brown had similarly followed a less catastrophizing line than Rostovtzeff, when discussing the group of three very similar Roman-style bathing facilities in E3, and outside the military base in M7 and C3, which he also thought were built by the military. He saw these as evidence of 'the intensive Romanization of municipal life characteristic of the city's last half century' (PR 6, 104).

Subsequently, other commentators have reviewed the evidence for the garrison and its built infrastructure, on the basis of the published literature, varying degrees of archival research, and in some cases visits to the site. Some followed the line established by Rostovtzeff. For example, Dabrowa

accepted that there been a sudden traumatic change around 210, a Roman military takeover precipitating the end of prosperity for Dura, and suggested that, when the old Greco-Macedonian aristocracy lost its ascendancy as a result, they may have left (Dabrowa 1981, 73). Nevertheless, more recent academic comment on the impact of the Roman garrison has tended to be more nuanced or actively dissenting.

Although study of the Roman military base was not an objective of the work of the modern Franco-Syrian expedition, nevertheless its presence loomed large, and a small amount of new fieldwork was conducted on aspects of its archaeology prior to the present project. This included sampling of the types of mud brick used in several base buildings and in the 'camp wall' conducted by Gelin for her PhD on the use of this constructional material at Dura (Gelin 2000), plus some small new excavations in the 'Palace of the *dux*' by Downey a 'second-generation' Dura specialist trained at Yale (Downey 1991; 1993), and in and around the *principia* by Lenoir (Lenoir and Licoppe 2004).

In reviewing Dura's history in 2011, Leriche, Coqueugniot, and de Pontbriand followed the Yale narrative, of limited military impact until a major transformation 'around 212 CE' when 'previous constructions in the northern part of the site were either razed or modified to accommodate the needs of the army. Religious buildings were not preserved from the militarization of the neighbourhood' (Leriche et al. 2011, 35). The sanctuaries of both Bêl and Azzanthkona were henceforth probably reserved for soldiers, with the X9 temple deconsecrated and razed, suggested to be on military takeover, while more generally there was a clear separation between the Roman camp and the rest of the city in the third century CE (Leriche et al. 2011, 35). On the other hand, it was not entirely a tale of disruption. They also noted that, before its destruction, Dura was acquiring the street colonnades characterizing other Roman provincial cities in Syria (Leriche et al. 2011, 27).

Downey had also followed the established line on the history of the garrison, identifying little evidence of any substantial camp before what she, too, saw as the major building campaign establishing the base around 210 (Downey 2000, 163–5). She did, however, take a less drastic view of the impact of the Roman garrison of the town, and followed a more agnostic line on the permeability of the base boundary to civilians wishing to worship in the Durene temples sequestered within the base (Downey 2000, 164–5).

Downey did not then have access to Pollard's *Soldiers, Cities, & Civilians in Roman Syria* (Pollard 2000), which inevitably featured Dura strongly. Pollard, while noting that the Mithraeum evidence indicated a military presence in the NW area before 170, and that the excavators thought that a large house in E4 had been converted to military accommodation in the later second century, accepted the received view that 'most military buildings date to the reign of Caracalla or later, as do the conversions of civil housing to

military barracks' (Pollard 2000, 48, 54–5). With regard to extent of the cantonment, whatever the actual boundary of the 'military quarter', soldiers were also billeted outside it, elsewhere in the town (Pollard 2000, 55). Conversely, like Downey, he considered how far the base boundary was permeable to civilians. He noted that the Temple of Bêl contained a painting dedicated by the eunuch Otes and a *bouleutes* alongside military dedications, which would imply that at least privileged civilians were allowed into the base, although he also cited other evidence implying separate military and civil worship. He suggested that the small size of Dura's amphitheatre indicated it was solely for military use in contrast with that at Bostra, which was large enough for civilians as well (Pollard 2000, 50–2). Similarly he regarded the baths in E3, M7, and C3 as built by, and solely for the use of, the soldiers, stating flatly that 'there is no evidence for civilian use of Roman-style bathing facilities at Dura' (Pollard 2000, 52–3), although effectively simultaneously Downey was pointing out that there are no recorded graffiti from the baths to provide information on this either way (Downey 2000, 167).

In an important summary, he observed that:

The evidence from Dura enables us to be more specific about the spatial interaction of military and civilian populations than elsewhere and to consider the 'permeability' of physical division between military and civilians and hence, perhaps, the degree of separation between them. The whole city, rather than just the military quarter, was defended, and troops controlled the main gate... The civilian part of the city also was used for military housing on at least an occasional basis. Baths and the 'brothel' situated in the civilian part of Dura were used by the army. Temples provide some evidence of overlap, but most were separate. Overall there seems to have been potential for quite a lot of physical intermingling of soldiers and civilians. However, archaeological evidence does not really show the character of this mixing, and the key question... is whether physical proximity equated to close social, cultural, and economic relationships. (Pollard 2000, 56–7)

In rounding off his study of Syria as a whole, Pollard concluded that there was strong separation of soldiers and civilians in the province, especially at Dura. Millar had seen the soldiers at Dura as integrated (Millar 1993, 133), something Pollard conceded was reasonable on spatial grounds and given the prior ethnic links with Palmyra, yet:

a detailed examination of the evidence for cultural and social relationships suggests that the institutional identity of the army supplanted many of the ethnic characteristics of the individuals who composed it. The importance of institutional separation is particularly surprising given the considerable evidence for the physical proximity of soldiers and civilians in Syria and Mesopotamia... Given only evidence (archaeological and epigraphic) of physical proximity, we might draw mistaken conclusions about social and cultural proximity. The quality of the documentary evidence from a few sites, particularly Dura-Europos, shows that an institution with a strongly introspective social character and distinctive advantages of status and power can maintain a separate identity from a

population even when the two coexist physically. Indeed, a high degree of physical intermingling may even serve to emphasise the importance of social and cultural separation as a means of preserving identity. Conversely, the evidence from Dura (a frontier community, Roman for less than a century) may distort the picture somewhat. The situation in northern Syria may have involved greater integration. (2000, 166–7)

Pollard, then, mildly echoed Rostovtzeff's tone, presenting the Roman garrison at Dura as practising a kind of *apartheid*.

In her unpublished PhD thesis on Dura's famous *Feriale Duranum* (Latin calendar papyrus: Reeves 2004), Reeves vigorously attacked Rostovtzeff's interpretations, in what constitutes the opposite end of the spectrum of opinion on military: civilian relations in the city. She affirmed that we should not (as she saw it) 'look for conflict' between the soldiers and civilians in the city, or see the garrison as necessarily oppressive, because the general Roman imperial method was rather to seek concord with, and integration of subject polities (Reeves 2004, 213). Following scholars like Bowersock (1974, 18) and Momigliano (1966, 100), she argued that Rostovtzeff's take on the Roman military at Dura was in line with his views expressed in the first edition of his *Social and Economic History of the Roman Empire* (Rostovtzeff 1926), in which he postulated a third-century 'alliance' between soldiers and peasants to overthrow the 'vital' middle classes of the empire—people such as Dura's ruling *Europaioi* (Reeves 2004, 21–2). This view did not find favour, and from an early stage was vigorously critiqued as misleadingly back-projecting the Soviet revolution, and indeed the existence of a *bourgeoisie*, onto Rome. Rostovtzeff published his *Social and Economic History* shortly before reinitiating excavation at Dura. It is not surprising that his 1938 account of the city accordingly envisaged destruction of the propertied class by proletarian soldiery.

Undoubtedly, Rostovtzeff's views were strongly coloured by back-projection of the Red Army and Soviet revolution onto the Roman empire (and by 1938 he likely had jack-booted Nazi thugs in mind as well). Reeves was equally right to emphasize that in practice the Romans genuinely sought cooperation, harmonious coexistence, and (her favoured term) concord with subject societies (Reeves 2004, 189, 211), not simple military oppression. She noted the frequency with which *concordia* between various groups is emphasized on coinage. Especially relevant are mid-third-century coins from Bostra, provincial capital of Arabia and base of *legio III Cyrenaica*. These showed 'the Tyche of Bostra, clasped hands with the patron deity of the legionaries, Jupiter Ammon. Below was a legend espousing CONCORDIA BOSTRENORUM, explicitly harmony among the soldiers and civilians in the Garrison's town' (Reeves 2004, 212–13: citing Kindler 1983, 54 and 62). Reeves certainly had a point, chiming with Tacitus' picture of cordial relations between legionaries and civil population in Syria in

AD 69, in a vivid passage which has become *de rigueur* to cite in these discussions:

For the provincials were accustomed to live with the soldiers, and enjoyed association with them; in fact, many civilians were bound to the soldiers by ties of friendship and of marriage, and the soldiers from their long service had come to love their old familiar camps as their very hearths and homes (*et militibus vetustate stipendiorum nota et familiaria castra in modum penatium diligebantur*).
(Tacitus, *History* 2.80; Loeb translation)

She concluded that:

we would be incorrect to go looking for evidence of hostility between soldiers and civilians in this town. Such evidence may exist, as it may exist where whenever soldiers and civilians attempt live side-by-side. I suspect, however, that official policy at the time sought to promote feelings of commonality. In order for the town to survive, soldiers and civilians had to pull together for the common good. (Reeves 2004, 213)

So, while conceding that Dura may indeed have seen strife between townsfolk and soldiers, she emphasizes the theme of concord, in stark contrast to Rostovtzeff's picture of brutal oppression.

At the time Reeves was apparently unaware that Stoll had already covered exactly this ground in far greater detail in his published *Habilitation* (Stoll 2001). This comprised a view of military–civilian interactions at Dura and other Syrian cities as a critical response to Pollard's work rather than Rostovtzeff's. Pollard's 2000 book appeared too late for Stoll to refer to, the latter's work instead being largely a reply to Pollard's original PhD thesis (Pollard 1992), and a subsequent paper where Pollard had tried applying Shaw's notions of the Roman military as a 'Total Institution', socially separate from provincial society (Shaw 1983; Pollard 1996). Stoll's work approached the topic primarily through a study of Roman military religion in Syria and neighbouring provinces, paying particular attention to how far this involved or excluded civilian participation. His study was conducted within the general evidential context paying attention to archaeology and iconography, but was based primarily on the textual sources, including epigraphy, coin legends, and papyri. Its main temporal focus was the second and third centuries AD, and Dura necessarily featured very prominently.

Stoll's title was *Zwischen Integration und Abgrenzung...* (*Between Integration and Demarcation...*), but in conclusions specifically rejecting Pollard's views, he came down firmly on the side of integration as characterizing social interactions between soldiers and civilians in Syrian cities such as Dura (Stoll 2001, 419–40). He acknowledged, but strongly played down, the burdens and dangers posed by the presence of troops (Stoll 2001, 422), emphasizing instead the evidence in the sources for promotion of military–civilian harmony (Latin *concordia*, Greek *homonoia*: Stoll 2001,

414–15, 424). Coins minted by other eastern garrison cities (Dura minted none of its own) attest mutual identification of *polis* and resident soldiery (Stoll 2001, 439), in his view resulting in symbiosis extending to integration between civilians and soldiers (Stoll 2001, 418–19, 427). It is, however, noteworthy that he seems effectively to equate cities primarily with their ruling elites (Stoll 2001, 415). Stoll also emphasized the economic benefits to cities of urban garrisons: ‘A major role in the fundamentally good relations between the army and the provincial population was played by the presence and purchasing power of the military, whether within the framework of army logistics or the satisfaction of the personal needs of the soldiers’ (Stoll 2001, 427: translation SJ).

Subsequently, two other German scholars have taken similarly positive positions regarding impact of Dura’s garrison. Sommer saw the evidence from Roman-era Dura as indicating ‘a military-induced economic boom with matching immigration’ (Sommer, M. 2005, 313). Rather than stagnating, let alone dying, he argued that the city had embarked on a new trajectory, part-militarized to be sure but also starting to become a recognizably Roman town. Subsequently Ruffing has also emphasized the economic activity and prosperity of Roman Dura, no longer seen as Rostovtzeff’s caravan city

for which no evidence exists, but as a regional market town benefiting from a regular influx of soldiers’ pay (Ruffing 2007; 2010; 2016, 407).

To summarize, the existing published literature generally agrees that the coming of the Roman garrison had a major impact on Dura. Further, this event, and building of the base to accommodate it, is seen as largely a phenomenon of the years around AD 210. However, beyond that commentators have evinced the broadest conceivable spectrum of viewpoints on the net outcomes for the city, from sudden traumatic mass expulsion of civilians followed by slow military strangulation to cordial integration and economic boom. Indeed, in commentary composed since 2000, the pendulum has swung away from Rostovtzeff’s gloom about as far as it possibly could. Yet all these accounts have remained more or less reliant on the work of Rostovtzeff and the Yale team, while also being hindered by incomplete publication of the evidence left by the excavators. Further progress on understanding the actual dynamics of the soldiers and the city demands, as Millar has urged (p. 3), a full reappraisal and publication of the evidence discovered by Yale. Fieldwork and archival research with this end in mind was already in planning as Reeves and Sommer were writing.

Project Context

Dura Research, Past and Present

REDISCOVERY AND EXPLORATION

The ruined city known locally as *Salhiyeh* was virtually unknown to western scholarship until the twentieth century (Sarre and Herzfeld 1920, 386–95; Kaizer 2017, 64), but its ancient identity remained unknown until the aftermath of the World War I when collapse of the Ottoman empire saw Britain and France divide up much of the Middle East between them (Velud 1988; Barr 2011). As we saw (p. 3), during operations against Arabs resisting the new western occupation, British-commanded Indian troops bivouacking at the site dug defensive positions and accidentally revealed wall paintings. These were seen and published by visiting American archaeologist James Henry Breasted (Breasted 1922; 1924), who first identified the ruins as those of the historically attested but unlocated ‘Dura...called Europolis by the Greeks’ (Isidore of Charax, *Parthian Stations*, 1).

The site thereafter fell inside the newly imposed borders of French-controlled Syria (Velud 1988). More substantial excavations were conducted and published with exemplary speed by Franz Cumont in 1922–3 (Cumont 1926), paving the way for the great Yale University/French Academy expedition overseen by Mikhail Rostovtzeff. This ran over ten seasons:

Season Dates

First season:	13 April–6 May 1928
Second season:	25 October 1928–31 March 1929
Third season:	30 October 1929–9 April 1930
Fourth season:	31 October 1930–31 March 1931
Fifth season:	26 October 1931–mid-March 1932
Sixth season:	late October 1932–late March 1933
Seventh season:	late October 1933–end of March 1934
Eighth season:	30 October 1934–20 February 1935
Ninth season:	29 October 1935–February(?) / March 1936
Tenth season:	late (?) October 1936–February or later 1937

(Dates from the *Preliminary Reports*, and Hopkins 1979, xxii–xxiv, except ninth and tenth seasons from information in Yale archives provided by Megan Doyon and Richard A. Grossmann.)

With a Roman military presence attested from the outset, further traces were encountered throughout the city’s exploration, with the heart of the military base area being identified and excavated in the fifth season, and the great ‘Palace of the *dux ripae*’ in the ninth. While masterminded by Rostovtzeff, and more nominally Cumont, these giants actually only briefly visited the excavations on a couple of occasions. The dig was conducted under a series of field directors: Maurice Pillet, Clark Hopkins, and finally Frank Brown (Fig. 2.1). These led a small team of American and European architects, artists, and archaeologists, mostly male (although women occupied prominent places on the team, including Yale graduate student Margaret Crosby and most notably Hopkins’s wife Susan); they were mostly young and inexperienced (including Hopkins and Brown). Another major figure in the expedition was the aristocratic soldier and archaeologist Robert du Mesnil du Buisson who, after Pillet’s dismissal, represented the French Academy at Dura.

These few westerners, supported by Syrian staff and Armenian foremen, supervised workforces sometimes exceeding 300 local Bedouin men and boys who shifted prodigious quantities of earth, dumping most of it outside the city walls with the aid of rail-borne mining trucks (Gelin 1997; Fig. 2.2).

As was standard practice at the time, the finds were split between the participating institutions. The French Academy half (including the synagogue paintings) went to the new National Museum in Damascus, while Yale’s half (including the Terentius, Christian, and Mithraic paintings) went to Yale University Art Gallery, which also housed the expedition archive. Lack of funds ended the project in 1937, as war loomed again in Europe.

Achievements and Limitations of the Yale/French Academy Expedition

Fergus Millar’s comments quoted at the outset provide a valuable concise summary judgement on the Yale/French Academy expedition, at once praising the achievement of the early excavators, while lamenting their methods, hasty approach to interpretations, and incomplete publication. They revealed a colossal amount about the city, on a scale

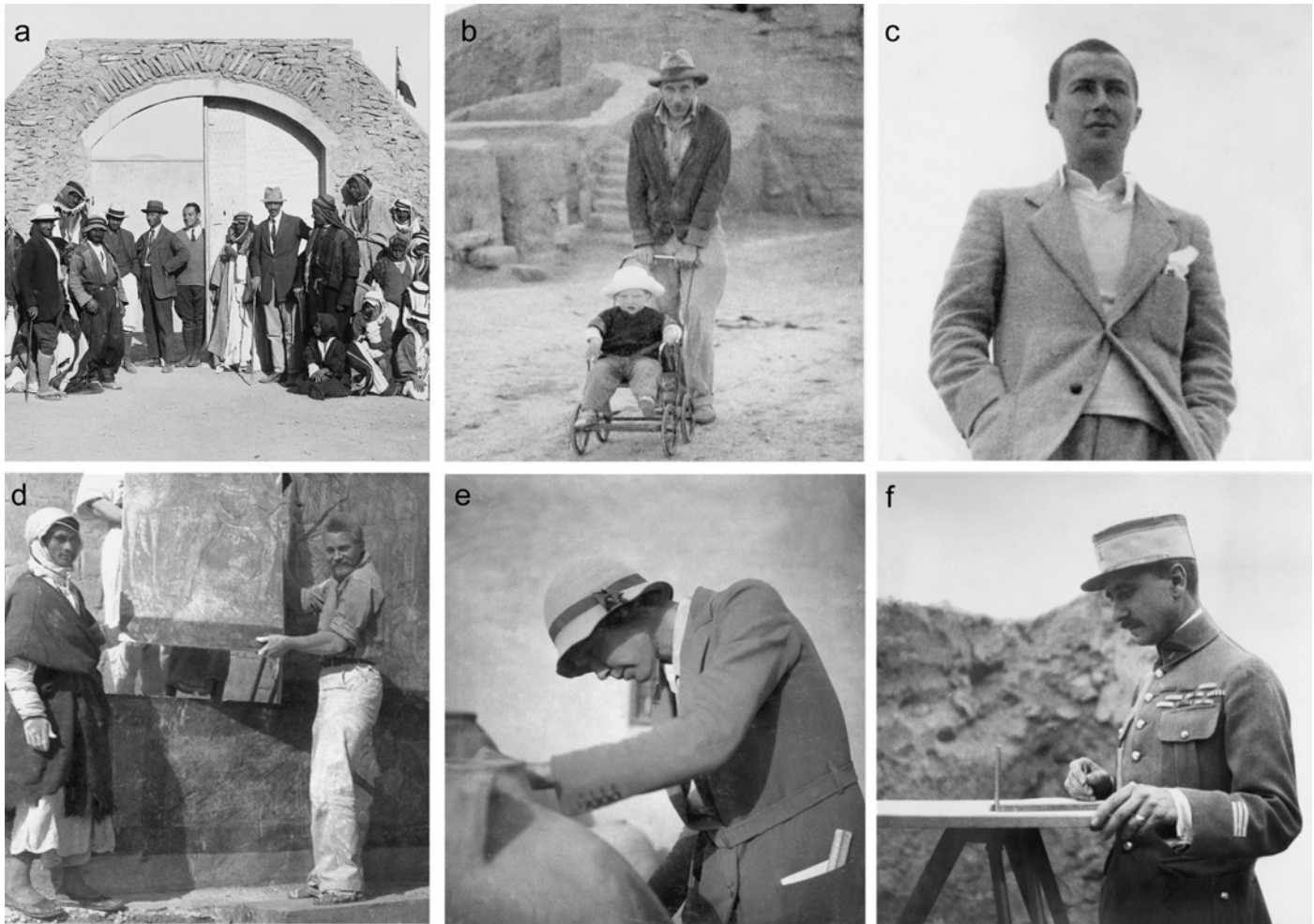


Fig. 2.1. Some of the key staff of the Yale/French Academy expedition. Top row, the three successive site directors. a. Maurice Pillet (with walking stick), seen with part of the third-season excavation team. b. Clark Hopkins, with his daughter Mary-Sue. His wife Susan Hopkins was a key team member, but extremely camera-shy. c. Frank Brown. d. Architect Henry Pearson, dismantling the synagogue paintings. e. Margaret Crosby. f. Robert du Mesnil du Buisson, using a plane table and alidade.

and speed which could not be matched today on financial or indeed ethical grounds. Recording was inevitably of variable quality, sometimes non-existent.

It is clear from the archives that a fundamental reason for these inadequacies was sustained external pressure. Yale University's President Angell controlled finances, pushing the expedition to keep making high-profile discoveries he considered vital to maintaining the flow of funds (Baird 2018, 1–16). The excavators were forced to work at a pace which denied them the time necessary to properly deal with what they were finding. They also sometimes came under pressure from the French authorities to employ much larger numbers of local men and boys than planned, as famine relief work. Such circumstances would overwhelm the best trained professionals. However, the actual levels of archaeological skill possessed by the various excavators were variable, to say the least.

Archaeology as a discipline and profession was still in its infancy, training largely ad hoc, standards still evolving. However, by the 1930s sophisticated excavation methods and recording systems were in use elsewhere, e.g. at Verulamium (St Albans, UK: Wheeler, R. E. M. 1936) and Olynthos (below, p. 28). Anxieties about excavation practices are evident within the team itself, especially under the first field director, Maurice Pillet. As Baird reports, in an archived letter probably of 1930 addressed to Bellinger at Yale, Henry Rowell expressed his qualms that Pillet's methods of clearing the western wall towers, motivated by a search for papyri, were 'more treasure hunting than legitimate archaeology'; they were also extremely dangerous, as the same letter reported three workmen killed in clearing a tower (Baird 2014, 14 n. 48).

Pillet's focus on architecture and papyri derived from his background in Egyptology which, foregrounding tombs and

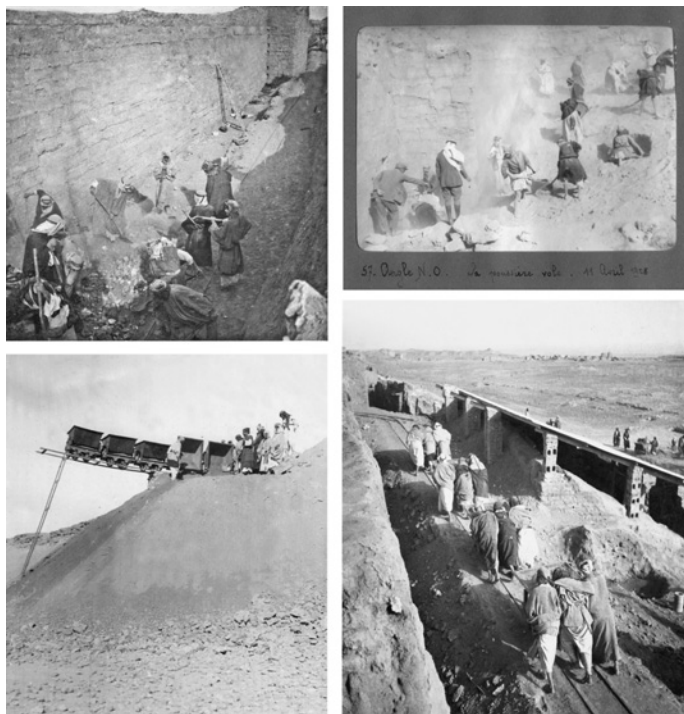


Fig. 2.2. Excavations underway on the Yale expedition. Locally recruited Arab workmen digging with shovels, with the earth removed in baskets to mining trucks on narrow-gauge rail tracks.

temples, was especially underdeveloped in the excavation techniques required to tackle complex urban landscapes like Dura. He was eventually fired and replaced by Hopkins, although Angell removed him more because he was abrasive and his crude methods led to worker fatalities (Baird 2018, 10). His successor Hopkins was certainly a better field archaeologist, and more open to learning. He, too, had been dismayed by Pillet's methods, and sought to develop his own technique by studying practices at Olynthos (Hopkins 1979, 36; Baird 2014, 18). Nevertheless, as Baird (pers. comm.) has also rightly observed, study of the archive shows that Henry Pearson, a graduate student trained and employed as an architect and a very fine draughtsman, often showed more understanding of stratigraphy than either Hopkins or his classics-trained successor, Brown, who was still writing his PhD on Plautus while learning on the job at Dura about both archaeology and architecture (Scott 1988). Du Mesnil was essentially self taught as an archaeologist and, although he published a textbook on excavation during the campaign (du Mesnil 1934), his recording methods and interpretive skills did not differ significantly from those of his colleagues. The project also greatly benefited from some other key members, including the artist Herbert Gute, and not least surveyor Henry Detweiler who produced Yale's definitive map of the city (Pl. VI).

During the course of the present project I have sometimes felt tempted to curse the excavators and their standards of recording, but had to remind myself that this would be unfair. Like all of us, they were products of their time and, for all their shortcomings, most if not all the expedition's members clearly deserve great credit as well as criticism for what they managed to achieve under horrendous pressures and harsh physical conditions (Yon 1997). With regard to the specific aspect addressed here, none except Du Mesnil was a military specialist, and the Roman base was just one part of the task they were charged with. Probably inspired by Cumont's example, for most seasons they produced book-length *Preliminary Reports* with remarkable speed rarely matched by other projects—if with inevitable flaws of haste deplored by Millar. In contrast, if I had much less total time on site than they, I had the benefit of drawing on another human lifetime of intensive research on the archaeology of the Roman military, and leisure to contemplate Dura's remains in great detail, in a planned campaign over five field seasons with almost no extraneous pressure except eventually to publish as soon as competing work commitments allowed.

Consequences of Methodological Shortcomings for Understanding the Military Base

Nonetheless, the expedition's underdeveloped methods of excavation and interpretation of material remains have had serious adverse consequences for understanding the city and base.

For those unfamiliar with archaeological method, excavators seek to establish the sequence of events attested by the remains they are excavating: what happened, and in which order, which gives at most relative dating ('this wall was built later than that one'). They also seek evidence for absolute dating: when in time the sequence occurred. Events like completion of important Roman military structures might be dated to a particular year by discovery of an associated inscription, but these are rare, even at Dura. Modern scientific dating techniques were not available in the 1930s. Even today, while some, such as dendrochronology (tree-ring dating) can potentially fix archaeological finds to a single calendar year, most, such as radiocarbon dating, produce results as statistical approximations with error bars. This is an important general property of most archaeological dating techniques: they are usually of their nature approximate and probabilistic, producing more or less 'fuzzy' results. Conventional archaeological dating relies on finding—and recording—datable artefacts associated with parts of the archaeological sequence. For Greco-Roman sites ideal finds are coins deposited in foundations. Minting of these may be datable to a specific year, but coins offer only a *terminus post quem*, a date after which the foundation was laid—which could have been decades later than minting of the coin,

inducing fuzziness to the date. And many archaeological contexts do not produce legible coins. The other general dating indicator is pottery, ubiquitous and paradoxically, once broken, near-indestructible. In the Roman imperial context fine table wares especially, e.g. various forms of glossy red *terra sigillata* and their derivatives, are well dated through associations of finds with coins at sites where they were produced or used, and were widely exported. However, pottery dating is generally even ‘fuzzier’ than coin dating. It may be possible to ascribe a building or structural phase to the nearest quarter-century on the basis of *patterns* of finds in them if they are large enough for statistical confidence; we are again dealing with questions of probability. Dating arguments might be based on analysing multiple coins, perhaps in combination with the characteristics of the pottery assemblage: it includes forms w, x, and y in fabric A which were current in the later second and early third centuries, but not form z, which came in during the early third, so the group was probably deposited in the later second century. Such conclusions rely on cumulative argument from multiple observations. Major events such as the final siege of Dura can be fixed to a calendar year or two by cumulative argument based on multiple individual observations, notably from the dates of the latest coins in siege-fighting contexts, and the absence of known, subsequent issues. However, many domestic archaeological contexts may produce neither coins nor imported fine wares, but just local pottery forms and fabrics, dating of which may not yet be established. Archaeologically, it may be hard to date such contexts at all. Even at its best, the ‘fuzziness’ of most archaeological dating is a crucial factor for the case of Dura’s Roman military base, where our understanding of its significance depends on whether key events occurred in this decade or that, within the short century of Roman hegemony. Unfortunately, the Yale expedition investigators were far from making the most of the material they were discovering.

The early excavators of Dura were, of course, aware in general terms of stratigraphic relations, essential for establishing sequence, and recorded those they identified. However, they did not consider them systematically, misunderstanding some critical relations and missing others entirely. They also missed many important clues from spatial layout. For examples, in the military base Brown correctly distinguished two successive phases of military occupation in the great E4 house, and identified successive modifications to the adjacent F3 bath and its subsequent replacement by the amphitheatre. However, it seems he got the F3 sequence profoundly confused (pp. 113–116). Similarly, despite several members of the expedition closely examining the E3 bath over the life of the project, apparently no one noticed key evidence, provided by the remains of the bath itself, indicating it overlay the foundations of an earlier establishment on a different alignment (p. 102). They also recorded the critical spatial relation of the E3 bath to the G Street water main, but

did not recognize its significance in providing a vital link between the E3 bath and F3 bath sequences (p. 262).

Their shaky grasp of archaeological site formation processes and sequences was accompanied by sometimes extremely cavalier approaches to dating excavated remains. Their methods generally failed to record finds of those datable artefact types found in meaningful stratigraphic locations which conventionally form the basis of absolute archaeological dating of structures like buildings. They did not consistently understand the importance of distinguishing between finds from under floor surfaces, from those found on them, and from material derived from overlying demolition or collapse deposits. This meant that they could not make proper use of the numismatic evidence recorded (presented primarily in *FR* 6), or of the datable imported ceramics, let alone the as-yet-unresearched local fabrics (on the pottery: *FR* 4.1, parts 1 to 3; lamps: *FR* 4.3).

Consequently, whenever possible they fell back on what was most familiar and secure for scholars whose training was mainly rooted in the classics: epigraphic dating. Where a dated text was recovered, its testimony was sometimes pushed beyond any reasonable limits in attempts to assign dates to excavated structures. Perhaps the most glaring example is the use of an inscribed altar found outside the Dolicheneum (not even within it), to ascribe to the 250s creation of nearby X7 ‘barracks’ which have no demonstrable connection to the altar at all (pp. 183–186). This stretched the evidence far beyond the bounds of credulity.

The excavators’ flawed approach to dating is epitomized in the outline chronology of the military base they proposed, which strongly emphasized a single transformational building episode in the years around 210. In this interpretation near-complete primacy was given to inscriptions from important buildings, while the archaeological evidence was treated as subordinate and seriously misread, or not properly examined at all. Indeed, as we shall see, their interpretations of the base layout and especially its sequence, as well as its dating, were also gravely distorted by inappropriate reliance on textual information.

While replete with astonishing detail, Dura’s textual riches remain relative: the documentary record for the site remains highly fragmentary, providing more an irregular series of vivid, stroboscopic flashes in the prevailing darkness than continuous illumination. The number of datable inscriptions relating to the military base is actually tiny. We have epigraphic dates (accurate to a specific year or two or three) for the Mithraeum, amphitheatre, and—crucial to the immediate discussion—the *principia*. And in the case of the Mithraeum, it is not entirely certain which phase of the temple one of the texts pertain to. However, most important military structures lack them entirely, as does the mass of military housing.

In fact, recovered texts demonstrated that regular Roman auxiliaries were based in the city decades before the 210s, and members of the Yale expedition certainly were aware of some

archaeological evidence indicating pre-210 military occupation, e.g. convincingly inferring this in the large house in block E4 (PR 6, 30–1). Textual evidence also placed creation of the military compound in the Temple of Azzanathkona in the later second century. However, overall the expedition's members interpreted the archaeology in terms of the story they thought the major building inscriptions were telling, and—equally crucially—in the light of their understanding of how imperial military camps and forts were created. Their knowledge of the Roman art of 'castrametation' was mainly derived from the work on temporary camps by Pseudo-Hyginus, *De munitiōibus castrorum* (Gilliver 1993; PR 5, 201–4). It was of course entirely appropriate to consider such sources; however, they went further and clung to them. They *assumed* the methods and practices described by the ancient writers had been followed; they did not ask whether they had been, which the archaeological data could tell them. Even though the Dura base was a permanent installation fitted into a densely built-up urban landscape, not a 'green-field' site for a temporary campaign camp like those detailed in the sources, the Yale expedition implicitly assumed that at least basic rules of Roman castrametation would still have been followed, as indeed archaeology showed was the case in the much better-known 'playing card' forts of e.g. Hadrian's Wall. Crucially, this meant *starting* with laying out the headquarters (*praetorium* in a republican marching camp, or *principia* building as we would now describe the HQ of a permanent station). Everything else in the base, from principal street lines to the soldiers' accommodation filling the bulk of the interior, would be laid out with respect to that—and created subsequently.

Expectation that all else would have been laid out with respect to, and after, the HQ is neatly illustrated in the plan of the newly identified central base area published in 1934, as it was first being explored (Fig. 1.13). The expedition had just dug the '*praetorium*' (*principia*), and found a stretch of widened, colonnaded street east of its frontage. They immediately identified this as part of a *via principalis*, the major transverse street normally laid out across the front of a Roman HQ building from one lateral gate to the other, and so the drawing confidently inferred street widening and colonnades extending westwards too. However, subsequent work showed this western stretch never existed; indeed the excavators already knew that to the east this supposedly fundamental transverse axis was puzzlingly blocked by a military bath house constructed across its line. In any case, another equally fundamental feature of Roman castrametation was obviously not applied at Dura: the *principia* stood between N–S streets, it did not straddle one to use its axis as a *via praetoria* leading to a main front gate.

Despite the further facts that the wider military-controlled zone around the *principia* was filled, not with the serried ranks of orderly barrack blocks familiar from Roman forts in Europe, but with roughly converted civil housing, and indeed retained a number of civic temples, expectations

persisted that basic practices of Roman military castrametation would have been followed. Rostovtzeff, writing in 1938 just after the end of the expedition, asserted that there had been major clearances of the military zone to allow the laying out and construction of the new base, in something approximating the expected manner (Rostovtzeff 1938, 51). The same argument was reiterated by Perkins decades later (Perkins 1973, 25). This was a gross exaggeration; the base was mostly created by conversion of existing building stock and use of still-vacant plots, with strikingly limited demolition of civil structures.

The excavators' largely implicit, persistent, text-derived assumptions regarding Roman castrametation practice meant that, despite awareness of some earlier military activity, they saw the base as essentially the result of a single episode of planning and construction. The *principia* was presumed to represent initiation of the plan, which a small handful of building inscriptions from this and other structures seemed both to confirm and to provide a closely dated 'epigraphic horizon' for. Epigraphy indicated that the *principia* was dedicated c.211, with further inscriptions showing other major structures of the base belonged to around the same time (e.g. the Middle Mithraeum, dedicated 209–11), or soon after (the amphitheatre, 216). Consequently, with isolated exceptions already mentioned, virtually *everything* in the base, even where lacking epigraphic dates, was presumed to be a creation of this short third-century episode (e.g. the E3 bath, and almost all of the 'barracks'), or later (notably the great 'Palace of the *dux ripae*' and 'X7 barracks'). The resultant picture, on which so much subsequent Dura scholarship has been built, was a house of cards.

The Yale expedition's treatment of the military base evidence was a classic instance of 'text-driven archaeology'—although such over-reliance on the papyri and inscriptions, imposition from ancient sources of assumptions which poorly fitted the case, plus (even by the standards of the time) misreading and neglect of the material evidence, made it rather 'text-hindered archaeology'.

As will be seen, the archaeological evidence actually suggests that much of the building and conversion work to create the military base cannot plausibly be ascribed to the 210s or later. This has major implications for understanding Roman military impact on the city.

Post-Excavation History and Legacy of the Yale/French Academy Project

Soon after digging ceased, World War II scattered and diverted the excavators to more pressing duties. It also helped precipitate the tragic final mental incapacitation of Rostovtzeff, well before his death in 1952. Consequently, the archive was lodged at YUAG in a less than perfect state, some records being lost in transit. After the war various scholars made substantial progress on the planned publications but,

while research on the results has never ceased, the *Final Report* series languished incomplete. Notably, the inscriptions never received definitive publication, still a significant handicap to scholarship.

Rostovtzeff's archaeological focus had been an innovation at Yale which his successors in the Department of Classics did not wish to maintain, leading to a sharp decline of university enthusiasm for the Dura legacy despite intense continuing international scholarly interest in the early Christian and Jewish antiquities and other aspects, including the exceptional military remains. Nevertheless, at YUAG a series of curators, with limited funds and many other responsibilities in what is primarily a fine art rather than archaeological institution, still actively pursued work on the archive. From 1980 Susan Matheson led a major effort to improve artefact storage, and raised funds to exploit newly emerging information technologies to make collections and archive much more accessible. Her stewardship saw important new research on the archive, some of which she conducted herself, some of which she facilitated for others, including my own *Final Report 7* on the military artefacts. Her efforts, now continued by her colleague Lisa Brody, have in parallel with the broadly contemporaneous and equally important work of MFSED at the site itself, underpinned a renaissance in Dura studies, exemplified in temporary exhibitions at Yale and Boston College (Brody and Hoffman 2011) and in New York (Chi and Heath 2011), culminating in 2012 in the opening of a fine new permanent Dura gallery at YUAG. At the same time, YUAG took the decision to formally close the incomplete *Final Report* series, instead encouraging new targeted publication projects which better address contemporary research interests. Baird's book on Dura's houses and households (Baird 2014) and the present work constitute fruits of this revised policy.

The Franco-Syrian Expedition (MFSED) 1986–2011

For half a century the site was hardly investigated further, until 1982 when Pierre Leriche of the CNRS in Paris, a

specialist in eastern Hellenistic urbanization and fortification, a French citizen himself born in Syria, restarted fieldwork. He followed a survey of Dura's mud-brick defences (Leriche 1986, 65), with small excavations in the following two years (Leriche et al. 1986, 1). Planning a longer-term campaign of conservation of the crumbling remains in tandem with new research, Leriche proposed to Syria's Directorate General of Antiquities and Museums (DGAMS) creation of a new joint Franco-Syrian mission, *la Mission Franco-Syrienne de Douira-Europos* (MFSDE), constituted in 1986 (Gelin 1997, 231). Renamed *la Mission Franco-Syrienne d'Europos-Doura* (MFSED) after 2004, the expedition subsequently carried out survey, and targeted excavation and conservation on a much smaller scale, but over much greater duration, than the Yale/French Academy expedition, with annual field seasons from 1986 to the start of the civil war in 2011. Since then, MFSED has focused on publication, while hopefully awaiting future opportunity to return to the site.

From the outset the research aims of the expedition were focused on origins and development of the city from Hellenistic to Parthian times, although Leriche was concerned to elucidate all periods of the city's story, taking a particular interest in the final Sasanian siege works. And although the Mission was primarily a Franco-Syrian enterprise, Leriche generously encouraged additional new fieldwork by scholars from other countries, under MFSED auspices. These included Susan Downey (US: who worked on the 'Palace of the *dux ripae*', Citadel Palace, and Temple of Zeus Megistos), the late Anny Allara (Italy) and then Jennifer Baird (Canada) on Dura's houses, and myself (UK). The Roman military base was not a research priority for MFSED, but prior to my own project Leriche facilitated the late Maurice Lenoir conducting a small excavation in the *principia* (Lenoir and Licoppe 2004), and the site featured in Lenoir's posthumously published survey of Roman military camps in the Near East and North Africa, although the treatment is mainly a summary of the published evidence (Lenoir 2011).

Developing a New Perspective on Dura's Military Base

PROJECT BACKGROUND

This research project arose, as many do, from an intersection of personal research interests and fieldwork opportunity. At its inception, I had already been working on material from Dura for twenty years, principally writing my PhD on the remarkable finds of (mostly Roman) arms and military equipment from the site, resulting in *Final Report 7*. I originally came to Dura as a Roman military archaeology specialist, but was acutely aware of my limited grounding in the specifics of the archaeology and history of the region. However, it is also clear that study of so huge and complex a data set as that from Dura must be a team effort involving many specialists from a wide array of disciplines and backgrounds, all of whom may bring outside perspectives potentially illuminating to the whole. My collaboration with MFSED began with an invitation from Pierre Leriche to examine some newly found items of military equipment. Spending time at Dura permitted an extended examination of the city, the Sasanian siege works, and Roman counter-measures (resulting in a publication on the Tower 19 complex, and indications of use of a 'chemical weapon' in the fighting; James 2011b), and especially of the military base where the soldiers whose equipment I had studied through artefacts and iconography had mostly lived. As previously mentioned, the base was not a primary research objective of MFSED. However, a project on the fixed infrastructure of the garrison would form a logical follow-on to my study of its martial material culture in *FR 7*. Contributing to MFSED's general aims of recording and publishing the city's remains, and to wider Dura scholarship, it also offered the chance to publish arguably the most important revealed but incompletely studied Roman military site in the empire. Further, this intra-urban military base constituted an ideal opportunity to pursue my own wider research interest, in how the Roman military interacted with civilian populations.

At an early stage in my research career, I had come to believe that the Roman military could only be understood in context, of Roman society as a whole, and of the peoples it

fought, conquered, and settled amongst. Too often, however, it was studied in glorious isolation, often in uncritical admiration (James 2002). It seemed to me that the Roman conquest and military garrisoning of regions like Gaul and Britain could only be fully comprehended in relation to the nature of their Late Pre-Roman Iron Age societies, which led me to study them as well (James 1993; James and Rigby 1997). This in turn led to an interest in the nature of identity in the past, a major topic in archaeology at the time, resulting in work on the notion of 'the Ancient Celts' (James 1999a). I also applied these ideas to thinking about the imperial Roman military, emphasizing the importance of *milites*, 'the soldiers', as a huge, empire-wide, self-aware imagined community distinct from, and in dynamic tension with, the state institutions of regiments and provincial armies (James 1999b). This contributed to a growing scholarly trend to see the Roman military as a social community, or collection of communities which lived embedded in provincial societies in hundreds of garrison stations scattered through the frontier provinces (above, p. 13). Largely peaceful interactions, not least through recruitment and intermarriage, resulted in convergences which helped to build new provincial societies (James 2001a; 2001b). A major advance of recent decades has been realization of the scale and importance of the groups of people dependant on the soldiers, with whom they formed what might be termed 'extended military communities', of great importance for understanding the internal dynamics of the military, and for its interactions with the civilian population (pp. 251–253).

In contrast, studying the Roman military, and especially its weaponry, demands awareness of the extreme violence and brutality often dealt out by imperial troops. This was not only on the battlefield; history shows that arrogant, sword-wearing *milites* were, as Rostovtzeff wrote, a danger to provincials, and indeed to their own commanders, especially in the third century AD. Yet there seemed to be a curious reluctance, even among military equipment specialists, to deal directly with the nature and consequences of armed force, on bodies and minds (James 2010). Something

similar appeared generally true of study of civil societies of the era, even though these largely comprised very hierarchical slave-owning polities, in which some people were property who ultimately had to be kept in their place through violence.

Through the work of Lendon (1997), I also became aware of the fiercely competitive nature of Roman-era communities, between and within cities, and equally between and within Roman regiments. Rivalries and oppression of subaltern groups generated an undercurrent of conflict and risks of lethal violence in both military and civil societies, running in tandem with peaceable and voluntary forms of social interaction. Seeing conflict and collaboration as equally important characteristics of the ancient world ultimately led to *Rome and the Sword* (James 2011a), in which the concept of 'the sword and the open hand'—the standing threat of lethal violence operating in parallel with real, if strictly limited, selective and conditional inclusiveness towards the conquered—encapsulated my view of how the Roman state, and its military, interacted with subject peoples.

This, then, was my understanding of military–civilian interactions when the opportunity to study the Dura base arose. I believe considering both the potentially positive and negative sides of the presence of the Roman military at Dura better reflects what we know of human societies in general, and the Roman world in particular. It is for others to judge whether I have simply found what I expected to see, the charge levelled at Rostovtzeff. However, in general, the more and better data there are, the narrower the range of plausible interpretations which can be built on them. As emphasized above (p. 28), in this project I have been fortunate to have more time to consider the evidence than the original excavators did, and indeed have been able to add to it, mostly through geophysics. Also this work was undertaken with the benefit of a more overt and, I believe, better-founded theoretical framework, informed not only by several further generations of scholarship on ancient societies, but also in archaeological interpretation and understanding of site formation processes.

OPPRESSION VS *CONCORDIA*? CONCEPTUALIZING A NEW STUDY OF GARRISON, BASE, AND CITY

Like Rostovtzeff and all other scholars studying it, then, I bring to Dura my own understanding of the Roman world, and doubtless my own prejudices and baggage of experience. But different perspectives may help to make better sense of the evidence. In what follows, especially in Part III, I argue that the evidence for base and garrison implies a new and quite different view of Dura under Roman rule, emphasizing little-appreciated evidence for

complexity in structure and dynamics within and between both military and host communities.

As we have seen, existing scholarship has given us a spectrum of views on the impact of garrison and base, with Rostovtzeff and Reeves offering polar extremes. Reeves developed previous critique to expose Rostovtzeff's image of brutal occupation as substantially back-projection onto Rome of his own traumatic experiences. But Reeves's, and more substantially Stoll's, reciprocal emphasis on *concordia/homonoia* and integration is itself open to challenge. In his sketch of amity between Roman soldiers and Syrian civilians (p. 24), Tacitus was making a rhetorical case, establishing justification for Syria's legions rebelling against Vitellius and proclaiming Vespasian emperor. Reeves, in so strongly emphasizing imperial striving for harmony, and urging that we should expect concord rather than conflict between soldiers and townsfolk at Dura, is in danger of fostering an unduly rose-tinted view which simply inverts Rostovtzeff's grim Red (or White Russian) prism. The historical record for the third century is hardly characterized by harmony. In my view, *concordia* appears on coins etc. precisely because, while undoubtedly desired—and anxiously sought—by the state, in reality it was in limited supply, not least between the imperial armies.

The Roman state certainly sought concord with its subjects—but not with all or even most of them. Stoll's work made a very good case for common pursuit of *homonoia* and degrees of successful integration—although this was primarily between the military and civil elites in a process which served their interests and those of the imperial regime (Stoll 2001, 440). Emperors wooed those who mattered locally, groups who could ensure—or help enforce—acquiescence of the majority: amenable political leaderships, typically landowning elites. In my view, operation and stability of the Empire did indeed rely on harmony, or more accurately watchful rapprochement, between emperor, soldiers, and landowners in a pact to control the near-powerless majority—the objective of Rome's tried and tested approach to empire which I have called the sword and open hand (James 2011a, 41). During the turbulent decades in which Dura's military base flourished, this rapprochement was likely massively strained by foreign and civil wars. There is, then, as much reason to question Stoll's and Reeves's emphasis on *concordia* as Rostovtzeff's on military oppression.

I am no apologist for Roman imperialism or uncritical admirer of the Roman military, which was frequently every bit as venal, violent, and oppressive as Rostovtzeff portrayed (James 2011a). At the same time, I am equally sceptical of simple mirror-image views, which might variously paint a comfortable picture of Roman imperialism, or imagine Hellenistic or Parthian imperialisms in rosy contrast to Roman brutalism, or portray city-states like Dura-Europos just as benign, passive pawns in superpower confrontations. Most people, and probably all societies, are more complex

(and, frankly, more interesting) than is allowed by the implicit 'good guys–bad guys' dichotomies often underpinning such views. We should be equally wary of naïve post-colonialism. While a fundamentally post-colonial stance is today ethically necessary for modern western scholars, this does not mean simply 'identifying with the colonized'. They must indeed be incorporated into our understandings of the Roman period as active agents in their own right, albeit operating under highly asymmetric power relations. But we must also recognize that their motivations, like those of the representatives of the imperial power, may often have been selfish rather than altruistic—and, equally, in competition amongst themselves. For they, like Roman soldiers and officials, were complex human beings living in complex societies.

At Dura, neither the civilian nor the military component comprised a monolith, although both have often been treated as such: 'the garrison' or 'the army' or 'the soldiers' on one side, 'the Durenes' or just 'the *Europaioi*' as the only group who really counted on the other. It has long been clear that the civil community of Dura-Europos was exceptionally complex in composition. Deep cultural distinctions are encapsulated in its twin, alternative names. The received understanding is that the majority of the urban population comprised Semitic-speaking Syrians from the local region who had few or no political rights, ruled over by an exclusive elite class, the *Europaioi*, themselves under a hereditary ruling dynasty, the House of Lysias (p. 50). Dura was also apparently home to enclaves from other communities, e.g. the village or town of Anath down the Euphrates valley (Northedge et al. 1988), and had an especially important relationship with the larger and more powerful city-state of Palmyra to the west (Dirven 1999; Kaizer 2017). Apparently both segmented and strongly hierarchical, such a variegated demographic composition implies potentially difficult internal civic dynamics at Dura.

At the same time, the imperial garrison itself also exhibited complexities which our general understanding of the Roman military suggests will have made it far from monolithic. In the third century it comprised both auxiliaries and legionaries, the latter from two different legions which, given the propensity for rivalry between Roman units, was a recipe for friction. Each contingent was itself a network of interest groups, with potential tensions between the mass of lowly, mostly young *milites gregarii*, older and privileged groups such as clerks and standard-bearers, officers like *optiones*, decurions and centurions, and contingent commanders. That a major element of the Roman garrison comprised a regiment of Palmyrene auxiliaries serves to underline the social, cultural, and political complexities of Dura's civil and garrison communities, and of relations between them. Jewish and Christian groups, apparently arriving after the Roman takeover, added yet more dimensions.

Yet there is still one more major element to add to the picture. It is also now clear that a middle imperial garrison

like that at Dura normally involved much more than just the soldiers envisaged by Rostovtzeff. Scholars have long been aware that Roman regiments and armies, like others through history, typically had 'tails' of 'assorted hangers-on', often caricatured as itinerant traders and prostitutes providing 'services' for the soldiers outside the camp gates. Dura's excavators identified such 'camp followers', in e.g. the supposed army-owned entertainers' house-cum-brothel (PR 9.1, 115–18, 166–7, and nos. 940 and 941, 203–65, pl. XIX; Pollard 2000, 53–4). The divorce document of a legionary showed that some soldiers were married (P. Dura 32). However, in the excavators' accounts, and in much subsequent literature, soldiers' dependants have been mentioned but little discussed, or ignored entirely. This is potentially a very major omission. Over the past quarter century, research has shown that Rome's permanent formations of long-service soldiers, often established in the same bases for decades or even centuries, came to possess something much more elaborate than ragged trains of 'camp followers'. Soldiers' military and domestic servants and those manning the baggage train, plus officers' and soldiers' private households, may have added up to very large numbers indeed. However, for Dura this aspect has never been fully considered. If such an 'extended military community' of soldiers and a mass of dependants indeed existed at Dura, it would imply a picture of the city's demographic and sociopolitical structure, and military–civil dynamics, very different from those usually envisaged. This issue is examined in Part III.

REMIT, RESEARCH AIMS, AND OBJECTIVES OF THE STUDY

The study is focused on the creation and use-life of the military base in the northern part of the city, in the period between establishment of Roman power AD c.165, and the great disruptions of life in both base and wider city during the wars of the 250s which culminated in siege and destruction. It excludes consideration of the military events surrounding the Roman annexations of Dura, the final preparations for the Sasanian siege, or the siege-works themselves, except insofar as these impacted on the remains of the pre-existing base, e.g. where buildings were partly entombed by the anti-siege ramp. This exclusion was made on grounds of logic and scale: the archaeology of the largely 'peace-time' military base is fairly readily distinguished, and differs in kind, from the remains of warfare with which the Roman episode began and ended. There was also the fact that the project needed to dovetail with the existing programmes of other researchers working under the auspices of MFSED. While I actively maintain my own interest in Dura as a 'conflict landscape' (James 2011b; 2015a), the archaeological evidence relating to the final siege requires a

major restudy of its own, work which Pierre Leriche has been actively pursuing, especially through new excavations on and around the great Sasanian assault ramp.

Research Aims

The aims of the project are two-stage. The first phase intends on the one hand to establish the extent, conformation, nature, history of development, and operation of the Roman military base, in relation to the civil town of Dura-Europos into which it had been inserted. On the other, it seeks a better understanding of the developing Roman imperial garrison which occupied the base, including its history, composition, size, and very nature: did it indeed constitute not just soldiers but a much broader extended military community?

Together, archaeological study and textual review form the basis for the ultimate aim: better understanding the nature and development of interactions between Dura's imperial military presence, and the civil community with which they shared the city interior.

Research Objectives, Methods, and Outputs

The primary task was to explore, document, and analyse the archaeological evidence for the imperial military base within the walls of Dura-Europos; and to investigate what the archaeological testimony tells us about its development and impact on the fabric of the city. This was to be achieved through a combination of visual and geophysical survey, time and resource permitting only for very limited cleaning and excavation, of *in situ* remains at the site, with study of archival records.

In parallel with this archaeological effort, a separate review was undertaken of historical data regarding the names of units and individual soldiers present at Dura, calendrical dates of their presence and actions, and much detail of their organization. This information comes entirely from textual and iconographic material recovered from the site, and also includes some overt references to soldiers' dependants. The work is characterized as a review, not a full re-study which would in itself be a major project, and I am an archaeologist not an epigrapher or palaeographer. It was conducted through examination of the primary publications and the secondary literature.

The present volume presents the results of the military base survey, and of the parallel restudy of the textual evidence for the composition, nature, and size of the garrison community which occupied it (amplified in a related paper: James 2018). It will be supplemented by an archival resource, collating all available data from archival photographs and site notes to new photography and magnetometry, building by building and area by area. It is intended that copies of this primary resource, comprising an edited version of the original working documentation of the project (created as

Microsoft OneNote files), will be lodged with YUAG, MFSED in Paris, and, when circumstances permit, DGAMS in Damascus.

In terms of data remit, the military base and the wider city preserved a broad spectrum of information relating to the imperial military presence, not only architectural remains but also paintings, large numbers of inscriptions, dipinti, and graffiti, plus a wealth of portable material culture from papyri to pots and textiles, and from shoes to coins and quernstones, and items of soldiers dress and personal equipment which were the subject of a previous publication by the writer, *FR* 7. While drawing on this wider body of data the present volume concentrates, however, on the built environment of the base. It does not purport to be an architectural treatment, but is rather an attempt to elucidate the development and functioning of the base as a living, working spatial environment, within the framework of the city as a whole. This contextual study must therefore also consider zones and aspects beyond what seems to be the military quarter proper, notably the wall circuit and the baths near the main gates.

FORMATION PROCESSES OF SITE AND RECORD: A 'POMPEII OF THE SYRIAN DESERT'?

Deciding on a method to study the origins, development, and use-life of Dura's military base demands consideration of the natures of both the site and the archaeological record derived from it. Achieving the objective requires peering back through a series of filters which time has imposed between us and that historical reality. At Dura itself in 2005–10, the task was to try to see through a lifetime's subsequent weathering and erosion to understand the physical features which the original excavators revealed. With regard to the record they left, there is first the filter of publication: not just what was written but why, and also what was omitted because taken for granted, missed, forgotten, not thought of, considered unimportant, or even suppressed. Many aspects never reached publication at all, but are attested in the YUAG Dura archive. Here we must look back through the vicissitudes which affected the site records in the aftermath of the expedition, especially the years around World War II when some documentation was lost before reaching New Haven. Even allowing for such accidents, by comparison with more modern excavation archives, that for Dura appears both incomplete and strongly biased towards images—drawings and photographs—rather than text. Relatively few manuscript records survive, because some notebooks were lost, or perhaps never handed over, or—it seems in part—because the texts of the preliminary reports were considered to serve the function of primary excavation record. All this takes us back, as far as is possible, to what the excavators actually found between 1920 and 1937, as they dug into the near-pristine archaeology of the abandoned city.

Between its death as a city in the 250s and 1920, Dura experienced little human activity beyond the occasional passing of an army, a hermit or two, and, later, Arab families living in the Citadel, and the work of Ottoman road builders. Otherwise, over the intervening centuries the city interior saw slow weathering and collapse of the wooden roofs and plastered mud-brick walls characterizing most buildings, to a level surface punctuated by occasional mounds over major masonry structures. Meanwhile, the city's western wall lay still encased in an anti-siege rampart which inadvertently created a dry microenvironment preserving the Christian chapel, synagogue, other sanctuaries, and many portable treasures like textiles and papyri which together would make the site famous.

However, the anti-siege rampart represents one of a further series of filters affecting our ability to view the Roman military base and city as they were during the decades—roughly a human lifetime—before Dura was convulsed and then destroyed by war. Indeed, it is increasingly clear that the events of the years immediately *before* the siege marked a much more drastic and drawn-out transformation to life in the city than even the emergency rampart suggests.

As we saw, Rostovtzeff called Dura the 'Pompeii of the Syrian Desert', implying that it had undergone a single, sudden, sharp transformation, freezing a minimally transformed picture of preceding third-century civil and military life for us to see. However, Dura is not in a desert, while it is now understood that this 'Pompeii premise' was not true even of Pompeii itself (Baird 2012b). Its entombment by Vesuvius in AD 79 was indeed sudden, but it is now evident that life in Pompeii had already been massively disrupted by the earthquake of AD 62, and that post-79 there had been significant disturbance of the remains in antiquity, through salvage efforts (Allison 1992). Similarly, new work on Dura over recent decades strongly suggests that before the siege, over preceding years a series of other events and processes had already transformed that city from its previous urban normality. Far from being suddenly extinguished, 'Dura died a complex and prolonged death' (Baird 2012b, 307). We need to understand what happened in this final, extended catastrophe if we are to be able to see back through it, so to speak, to explore the developing and functioning base of the preceding decades.

How Dura Died: Implications for Study of the Military Base

It is well known that c.254–5, immediately preceding Dura's final destruction, the fabric of the city was devastated by the Roman authorities' massive programme of strengthening of the wall circuit in anticipation of a siege. All buildings close to the western defences, including those inside the base, were buried in the rampart or demolished for materials to build it.

Yet there is now reason to think Dura had already suffered yet greater shocks even before the physical devastation of rampart construction. Historical, archaeological, epigraphic, and papyrological evidence suggests that Dura was probably taken twice by the Sasanians. The apparent first occupation was c.252–3, during a massive invasion in which Shapur I took many cities including Antioch (Rostovtzeff 1943; Grenet 1988; Sartre 2005, 239, 348–9), although this is not accepted by all (Leriche et al. 2011, 27), and the evidence remains ambiguous (Baird 2012b, 312–14). If Dura was occupied by the Sasanians in 252–3—and I believe it was—the Romans were back in 254 (*P. Dura* 32) and undertook massive additional fortification in anticipation of what proved the final siege.

Even if Dura had been bypassed by the Sasanians c.252–3 and held out, this was still a moment likely to have had major consequences for the garrison. Much of it was probably withdrawn to concentrate Syria's provincial field army which Shapur defeated at Barballisus (Edwell 2008, 89–90). And even if, in that battle, Roman forces were scattered more than slaughtered, the garrison at Dura was likely permanently affected. Although we know the legionaries were back in Dura in 254, we have no such late reference to *cohors XX Palmyrenorum*, the major auxiliary unit present during preceding decades—although with so fragmentary a textual record that might simply be chance. In any case, massive disruption of the province and major defeat followed by arrival of the emperor Valerian with a European expeditionary force to restore Syria's desperate situation likely saw major redeployments.

If the Sasanians occupied Dura around 253, how they got in, and why they withdrew leaving the city intact, all remain unclear. It would mean that c.253–4 the city apparently changed hands twice without a major siege on either occasion: only one, final set of siege works of c.256 has been identified, with no evidence of subsequent clearance or repairs. Shapur's campaign strategy in c.253 was a massive and devastating raid deep into Syria for glory, booty, and prisoners rather than an attempt at conquest. He reportedly engaged in biblical-style deportations of entire city populations back into Babylonia. In this context the Sasanians were likely satisfied to take Dura, but had no intention of holding it, any more than other captured Syrian cities. Rather, they withdrew of their own volition, deporting any remaining Durene civil population at that time, rather than c.256. The garrison in 254–6, then, may have been of composition substantially different from that of pre-253; further, these soldiers were also apparently living in a city already profoundly changed.

In examining artefact records for excavated Durene houses Baird noted that some houses were occupied to the end, although the finds assemblages representing the last few years of the city look military (Baird 2012b). Traces of military presence in some blocks outside the base area,

e.g. G1 and C7, may not, as hitherto thought, represent peacetime billeting of soldiers on civilian households, but rather the military using vacant properties after the civilian occupants had left (Baird 2012b; 2014, 144–5). Baird has proposed that that most or all of the civil population had already gone before the siege (2012b, 312). All subsequent occupation inside the walls, in this case, was effectively military (Baird 2014, 115). This could fit with a general Sasanian deportation of the civil population c.253–4. However, she observed that the larger, finer houses seem to have been carefully cleared before abandonment, not consistent with looting and deportation; rather it indicates that their residents had escaped the city with all their portable wealth in a methodical evacuation (Baird 2012b, 317).

Given warning of military attack, civil populations in Syria and Mesopotamia, in the third century as well as the twenty-first, could opt to flee before fighting broke out, and there is historical evidence that some did so. In 198 Severus found both Seleucia on the Tigris and Babylon already evacuated (Cassius Dio 76.9). Around 253 perhaps many Durenes escaped to safety, probably in Palmyra, before the Sasanians arrived—but never got the opportunity to return.

Whether they had fled or been deported by the Sasanians, if by 254 the city's civilian population had departed, then the final garrison of c.254–6 will have been using the urban landscape in ways very different from the preceding decades. For these reasons, to understand the pre-250s military base in the city, the testimony of portable artefacts must be used with caution, as many of them likely attest the final, transformed state of a largely empty city and the outcome of the Sasanian sack, not earlier peacetime life in an urban landscape shared with the civilian population. Even the least portable semi-fixtures, such as heavy stone objects like grinding mills and 'coolers' (large, enigmatic gypsum or plaster vessels, usually found near doors, perhaps for washing hands: Baird 2014, 92–3), may well not have been found where they had been used before 250. There are also other serious methodological difficulties with the records of portable artefacts and so the present study makes very selective use of them. Which matters bring us to the nature of site and evidence.

The Portable Artefact Record

By comparison with modern excavations of Roman military sites, portable artefacts recovered from the Dura military base play a relatively minor role in the present report. This is not because artefacts were not recovered: indeed thousands were, in the base as generally across the city: Baird has collated the data for over 18,000 objects (pers. comm.). However, her work and that of others leads to the conclusion that artefact locations and distributions are of limited value to the present questions for a concatenation of reasons.

Architectural fixtures and fittings recovered from buildings are of course highly informative, but we have grounds

for caution about the meanings of finds of portable artefacts within them, even where data exist. For the first four seasons information on the context of discovery of artefacts hardly survives at all as Pillet, an architect rather than an archaeologist, saw no point in recording it. That said, most of the structures discussed were excavated in the fifth season or later, for which finds records do survive. However, the finds registers at best only locate items to particular rooms, with no indication of whether the objects came from the floors, from the fills above (which near the city walls comprises material brought in from elsewhere dumped to create the anti-siege rampart), or from below the floors (sometimes dug into in search of earlier phases). Even where things may be shown to have come from the floors of specific rooms, there usually remains the question of what this signifies.

Courtyards and floors at Dura were typically hard surfaces which were apparently generally kept clean, at least in archaeological terms: occupational debris of the kind we would like to find, including characteristic artefacts like (in this case) military dress and harness fittings (*FR* 7, nos. 1–369), fine-ware sherds, and coins, were not generally allowed to accumulate to any degree. Some of the buildings described here did produce material within the records of which Baird has identified some apparently meaningful patterning, e.g. in block E8 (p. 139). However, while of great interest in its own right, this is likely to represent the final Roman military occupation, likely a restored garrison after the inferred first Sasanian occupation of the city, during Dura's dramatic last couple of years—a time of intensive warfare which apparently saw major influxes, exodus, and drastic reordering of the population, civil and military. Material found on floors is therefore likely to represent this drastically altered situation, and was left as the debris of the final sack and abandonment of the city, i.e. the death throes rather than the prior use-life of the base buildings which is the focus of the study.

Overall, then, the artefact record tells us little about the relatively much longer and more settled prior life of the 'peacetime' military base. Portable artefact information is, therefore, presented here only where it appears to be directly relevant and informative.

THE EVIDENCE: SITE, AND NATURE OF EXCAVATION RECORD

Physical Character of the Site in 2005

Until post-2011 looting turned it into a moonscape, the bulk of the city's interior on the plateau still comprised a flat, fairly featureless expanse of unexcavated city blocks (Fig. 1.5). Most of the gently sloping floor of the inner wadi was similar, bisected by a run-off gully exposing buried walls, with its sides mostly steep slopes featuring some rocky outcrops. In wet winters the plateau surface could flood and

become a sea of mud, after which for some weeks it was covered by flowers and lush spring grasses. But most of the time, except for denser undergrowth which persists in moisture-collecting hollows, it was part-covered in sparse dry vegetation, in which walls could still be discerned as the parch-marks and lines of facing plaster which guided the early excavators (*PR* 2, 13). The intramural area essentially comprises the rubble-built lower parts of the final-phase buildings buried in a matrix formed by their own collapsed and slumped mud-brick superstructures, added to by frequent dust-storms or eroded by the perennial winds. Plant root action and animal activity—insects and burrowing mammals rather than earthworms—also helped rework the archaeological remains.

The plateau and inner wadi were punctuated by the many excavated areas, and in some places traversed by low embankments built to carry rails for the mine-trucks used to dump thousands of tons of spoil into the flanking wadis. The most massive excavations were along the city's great western wall. Since the 1930s this been in part exposed again as it was in the Roman era. A late Hellenistic construction, it was mostly built in gypsum ashlar, its northern part completed in mud brick. Most of the massive earthen inner rampart built by the Roman garrison in anticipation of the final siege was removed by the Yale expedition to reveal the buildings it entombed, although the mud-brick outer glacis generally remains, largely obscured by spoil-heaps. From the eroding surface of the mud-brick components of the defences still projected ancient reeds and even the occasional scrap of textile (Fig. 3.1).

Depth of stratigraphy varies markedly across the interior. There was never any great accumulation of archaeological deposits before the city's last days; the buildings of the final phases were founded on or not far above the limestone plateau capping. Buildings in the southern part of the city were typically buried to a depth of 2–3m, while those in the military district mostly survived to less than 2m, and in some areas were shallower still, almost eroded to bedrock. The building remains across much of the plateau produced excellent magnetometry results (Pl. VIII) although unfortunately much of the base area lay in the zone of shallower stratigraphy. Dura is no tell site; debris was not normally allowed to build up on floors, and if a structure was replaced, the site was largely cleared first except for the lower foundations of the earlier structures, building materials being reused, removed, or apparently spread on road surfaces which became modestly elevated by perhaps a metre or so above bedrock. This was especially so on the plateau; however, stratigraphy can be deeper and more complex in the old lower town near the expedition house.

A number of more massively constructed buildings resisted the levelling of wind and rain, surviving as isolated upstanding mounds providing obvious targets for the early excavators. One wall of the *principia* forehall still projected several metres above ground level when the city was discovered (Fig. 5.13).

Once buried, many walls remained well preserved, complete with traces of decoration and graffiti. Within buildings, while ceramics and glass generally survived well, soil conditions at Dura were chemically hostile to metals, especially



Fig. 3.1. Organic preservation in the western ramparts: L, a fragment of Roman textile exposed in the mud-brick glacis of Tower 15 in 2005; R, reeds in the structure of the Hellenistic mud-brick curtain wall behind block J7.

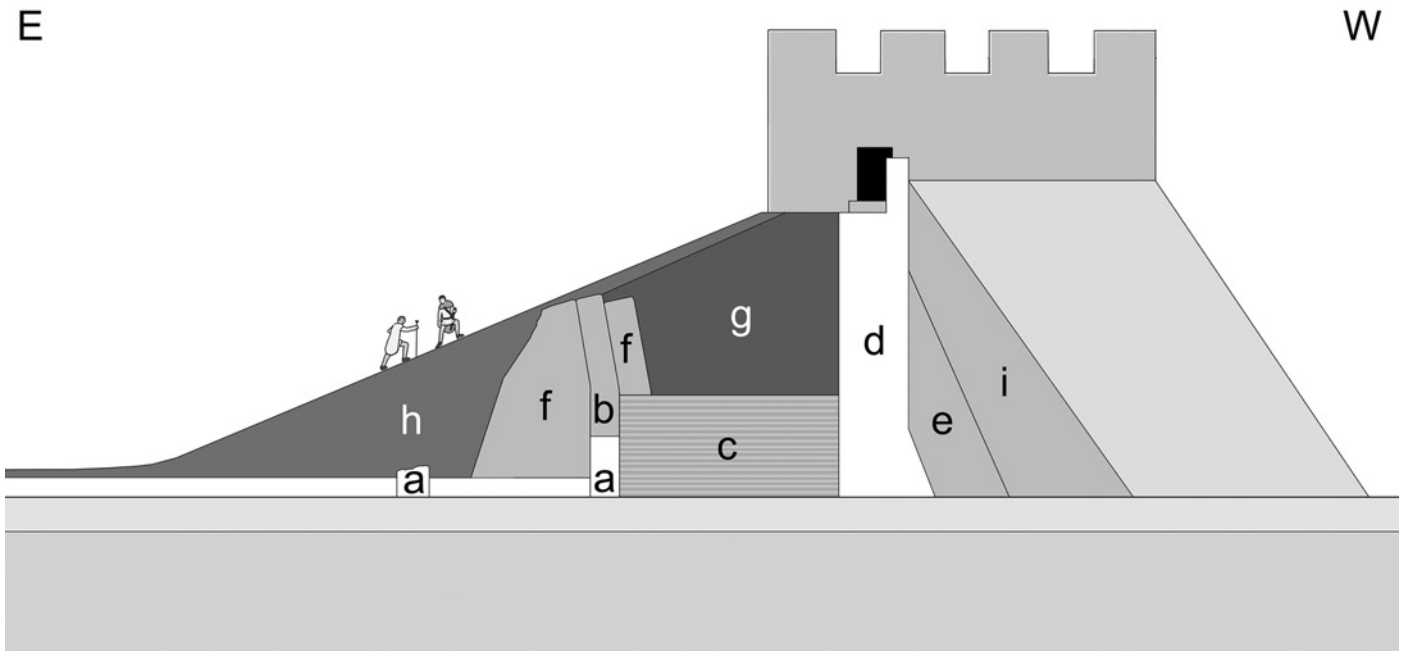


Fig. 3.2. Schematic elevation of the western defences by Tower 19: a. mortared-rubble foundations and floor of house backing onto Wall St; b. mud-brick superstructure of building; c. accumulated levels in Wall St; d. Hellenistic masonry city wall; e. mud-brick anti-siege glacis; f. mud-brick revetments to house wall designed to help retain g; g. infilling of Wall St to create a deep anti-siege rampart; h. extension of rampart to shore up b./f./g., and to permit easy access to entire rampart walk during fighting; i. reinforcement of glacis.

iron which could oxidize to destruction (on ground conditions and preservation of archaeological remains at Dura, Snow 2011). Organics do not survive across most of the site, because the ground is periodically soaked by rain facilitating biological attack. The remarkable preservation of textiles, leather, wood, parchments, and papyri for which Dura is famous was a localized phenomenon, an accidental by-product of creating the massive earthen rampart encasing the W defences (Fig. 3.2). Objects buried within it were protected by its steep slopes which caused winter rains to run off without penetrating far, creating a permanently dry Egyptian-style microenvironment.

The excavated structures have mostly now been re-exposed to the elements for approaching a century, and before the civil war were already suffering the effects of renewed erosion. Except in sheltered corners, exposed plaster had largely fallen off, exposing wall cores. Mud-brick superstructures exposed in this way have to varying degrees dissolved and washed onto floors, obscuring them. The standard mortared-rubble wall substructures usually had a good, flat plastered upper surface on which the mud brick was laid, and when exposed these resist weathering quite well, although many uncovered in the 1920s–1930s have crumbled; the gypsum from which they are built is relatively weak and friable. Many gypsum door-jambs *in situ* on excavation have now toppled. Preservation also varied greatly across the site. In some areas, such as J7 where most of the revealed structures were relatively

flimsy, by 2005 weathering had so progressed that it was impossible even to discern the lines of walls upstanding in the 1930s (Fig. 5.67). In other areas, such as the massive House of Lysias in D1 in the S part of town, door lintels still survived *in situ* (Fig. 1.10). MFSED's conservation programme sought to address the site's decay as far as practicable, consolidating and repairing many structures, especially temples. Its most major projects were reconstruction of the facade of the 'Redoubt Palace' (Palace of the *strategos*) which had collapsed before the 1980s, and in 2011 work to prevent toppling of the long Citadel wall.

At the time of the project fieldwork, additional threats from illegal excavation and deliberate vandalism were limited due to careful guarding, but increasing numbers of tourists were damaging the site simply by walking over it (especially the Roman Palace, which offered spectacular views of the river valley).

Erosion of the exposed remains is of course deeply regrettable, although it did reveal details of wall construction hidden at the time of excavation. However, much more has been lost (e.g. any plaster surfaces with paintings, dipinti, and graffiti), or at best lower levels reburied by collapse of upper parts. At the time of writing, it is not possible to assess the impact of the massive programme of site looting conducted during the civil war (p. 317), except to say that unsurprisingly it concentrated on the unexcavated areas and the necropolis.



Fig. 3.3. The Dura archive at Yale: a. the original 1930s filing cabinets and new drawers at West Campus, 2016; b. archived negatives; c. nitrate negatives from the sixth season; d. example photo file card, with print of image B87 and notes; e. a drawer of 'locus files', of collated notes and photos of each major structure or topic; f. examples of site record cards, relating to the M7 bath and the E8 'barracks', from the locus files; g. the plan chests of large drawings and artwork.

Nature of Archive and Publications

The published accounts of the Yale Expedition's discoveries are far from complete. What did appear comprises texts which present the discoveries to highly variable levels of detail and degrees of completeness, accompanied by varying quantities and qualities of line drawings, half-tone photographs, and on occasion colour plates. Those addressing aspects of the military base zone itself vary from the extensive (e.g. for the Roman Palace) to the cursory (J1-A 'House of the Prefect') to passing references (the camp wall, the F/10th St arch) to no mention at all (the X9 Temple).

The expedition archive is similarly patchy, but has a strongly different bias. However, within the mass of data, this textual element appears relatively thin, the excavation archive being strikingly dominated by visual images of various forms. YUAG's Dura archive preserves over 8,000 photographs taken at Dura, ranging from general views of

the site and specific buildings to details of architecture and artefacts, plus 'human interest' shots of the expedition's work in progress. An additional vital resource are prints of a small number of aerial photos, both oblique and vertical, taken by the *Armée de l'Air* (French Air Force). In particular a series of verticals taken in 1936 provides an invaluable photomosaic of the almost-complete Yale/French Academy excavations (Fig. 1.12). Subsequent photography conducted at YUAG, from early studio images of newly arrived artefacts to recent digital record shots of archived illustration artwork, total an additional 9,000 images (Fig. 3.3, b and c). Although the expedition's glass negatives are in good condition, much was shot on unstable nitrate stock, some of which has decayed; however, for most lost negatives a print survives. All surviving images have been digitally scanned, a YUAG programme of enormous help to the present project.

Hundreds of hand-drawn illustrations also survive, ranging from pencil diagrams and sketches of features of

buildings (many on file cards: Fig. 3.3, f), to acetate tracings and manual copies of wall paintings, figural and textual graffiti, and a range of large site maps, plans, elevations, isometrics, perspectives, and reconstruction scenes, some in colour. The larger illustrations generally have unique archive numbers. A few illustrations known from the publications are apparently missing, some perhaps lost as a result of the publication process. For example, the original publication drawing of the F3 bath and amphitheatre is currently unlocated. Reproduced as plate III in *PR 6* which was printed in Czechoslovakia as that country was coming under Nazi threat, it was perhaps lost there during the World War II.

In sharp contrast to the wealth of photographs and drawings, primary textual records, especially with regard to excavations of specific structures, are strikingly sparse. While excavators used notebooks to keep daily records and as a basis for published accounts (Figs 5.64 and 5.65, right), few entered the archive. Some are known to have been lost, in transit or as a result of the disruption caused by looming war. An extreme example was dealing with the evidence from the converted military housing of block E8, where the archival inked plan and (a less usual survival) the original pencil drawing constituted the primary surviving record of the dig; the site notebook itself largely comprised annotated sketches, and there were no archived photos (Fig. 5.63). However, much of this seems to be down to expedition practice.

Later twentieth-century projects more typically created formal sets of field notes and pencil site drawings, comprising site records for archive, from which separate publication texts would later be generated and inked publication drawings prepared during a post-excavation phase mostly conducted off-site, once the expedition had returned home. However, at Dura excavators like du Mesnil and Brown appear to have regarded the accounts they composed for the *Preliminary Reports* (some at least of which were written at Dura itself the same season or the following year) as the principal permanent record of their work.

This tendency to go straight to typescript as primary record had its equivalent in illustration practice. Relatively few pencil site drawings were preserved; rather, security/reference negatives taken on site show that many of the inked illustrations were prepared at Dura itself. Some were intended for direct use in the *Preliminary Reports* or anticipated *Final Report* volumes. However, many—notably some of Pearson's beautiful inked, sometimes tinted architectural drawings (e.g. Fig. 5.2)—were prepared with detail and lettering too fine to reproduce at any normal page size. For example, the large central base area plan E7 N.1 had to be much reduced and retraced for legible reproduction in *PR 5* (Figs 1.13 and 1.14). Many of the large inked drawings were evidently intended as primary archival records in their own right.

Nevertheless, the body of textual records which does survive is invaluable. It includes key documentation such as registers of artefacts and photographs, plus typescript and

manuscript texts on various aspects, while the surviving file cards and field notebooks created by the excavators contain useful, if often all too brief, handwritten notes and sketches. It also includes extensive expedition correspondence, mostly preserved in Yale's Beinecke library, which has proved very illuminating regarding the conduct and politics of the expedition (Baird 2018, 1–16).

Other general issues have been archive organization, storage, cataloguing, and accessibility. Just as outbreak of World War II hastened incapacitation of Rostovtzeff and disrupted expedition publication, so it also impacted badly on curation of the archive. A good start was made on cataloguing, with extensive file-card indices of artefacts and photographic negatives, organization of most paper records into files (Fig. 3.3, d and e) and archival numbering of major drawings. However, want of space, money, and resource hampered progress over subsequent decades. Since 1980 a major renewed cataloguing effort, increasingly employing digital technology, has progressed under the leadership of Susan Matheson and now Lisa Brody assisted by Megan Doyon, who have also always warmly welcomed and encouraged research on the archive. Still, they and visiting researchers have had other challenges to contend with.

The photographic negatives, and filing cabinets of paper documents and photographic prints have always been available for study (Fig. 3.3, a–f), but access to the rest of the archive, especially larger drawings, has been more problematic. A long programme of major refurbishment and extension affecting YUAG as a whole—intended in part to create proper storage, study, and exhibition facilities for the Dura material—resulted in much of the archive moving for some years to temporary storage with limited access. This made it difficult to conduct a thorough review of the material; so, for example, I only discovered in 2012 that Pearson's key fifth-season central military base area plan, long known from negative Fiv54, had survived in the archive (plan sheet E7 N.1: Fig. 1.13). Happily, as of 2016 the entire archive, visual and textual, was installed in a well-equipped study area at Yale's new West Campus conservation centre (Fig. 3.3, a and g).

METHODOLOGY AND EXECUTION: A VISUAL APPROACH

The primary task, then, was to capture information both directly from the surviving archaeological remains, and from the old expedition publications and archive, and to integrate it as the basis for drawing a new, fuller image of the military base. Integration proved a particular methodological challenge, with two sources rooted in the single reality of the site as excavated in the 1930s, but separated by three-quarters of a century, and each with its peculiar affordances and shortcomings.

From previous work I was already familiar with the range and extent of the evidence. Planning the project had to factor in sustainable amounts of time away from university duties and domestic responsibilities, over a manageable timeframe, in combination with available resources and a practicable budget. Ideally, all excavated structures in the base area would have been cleaned of vegetation and eroded, wind-blown, and washed-in material, with targeted trenching of floors and foundations to clarify stratigraphic relationships and to seek further dating evidence. However, this would have demanded resources an order of magnitude greater than were plausibly available. On the other hand, technologies unavailable to the excavators offered cost-effective additional strategies. The work at Dura would evidently primarily comprise survey, where it would be get useful results quickly in a very economical and cost-effective way, while not ruling out some very limited targeted excavation. Five field seasons were projected, fitting in with MFSED's annual spring expeditions.

This substantial archaeological project is unusual in being, except for critical help with survey work, conducted almost entirely solo, from initial research to creation of publication drawings as well as text composition. The result was that it has taken a relatively long time in terms of calendar years, but constitutes a very cost-effective effort in terms of person-years. It was chosen because the particular data-set suited my preferred style of working: conducting research not just through examination of imagery, but creating it myself. A project which at the outset I knew would be highly visual in nature, turned out to be even more so in practice.

The Course of the Project

The fieldwork was undertaken as part of MFSED's annual campaigns normally running from March to May, between the cold of winter and intense heat of summer. The constraints of the UK academic teaching year and family commitments meant that my work at the site had to be conducted in short seasons of roughly three weeks.

The project opened with a pilot field season in 2005. This, conducted in collaboration with Jennifer Baird who was then undertaking her PhD research on Dura's housing, comprised a detailed site reconnaissance involving initial photographic coverage, and a small excavation around the apparent end of the 'camp wall' at D St, where stratigraphy measured at most centimetres.

In 2006 I was awarded a Kress Lectureship by the Archaeological Institute of America involving an extended lecture tour in the US and Canada which prevented my going to Syria. However, following the initial field campaign, this provided a perfectly timed opportunity for an intensive study season in the Yale archive. This was followed by three more field seasons. During 2007 and 2008, alongside further inspection and photography of excavated remains, magnetometry surveys of unexcavated zones were conducted



Fig. 3.4. Kris Strutt undertaking magnetometry survey in 2007.

by Kris Strutt (Fig. 3.4: James et al. 2012). Jen Baird, Ben Gourley, and Dan Stewart also undertook Total Station survey work, related to the MFSED survey grid, in and beyond the base area in 2008 (Fig. 3.5, L). This supported Baird's thesis work and contributed to new MFSED site mapping while, for the present project, providing the armature for accurate new plans of individual structures and the base as a whole. In the UK between seasons, archive plans were superimposed on the framework of the new TS points, providing base imagery to be checked, corrected, annotated, altered and added to on the ground in the final season. These would in turn form the basis for new publication drawings.

In the event, while the 2008 survey work was continuing, my own time at Dura was cut short by a family medical emergency, the aftermath of which also prevented my returning in 2009, so the final planned field season took place in 2010. 'Ground-truthing' the new TS-fixed plan projections led to many more observations and minor discoveries about the layout of the base. Further extensive photography was undertaken in 2010 in connection with these finds, and generally to improve coverage. (Much 2007 imagery had proved poor, due to persistently gloomy weather.)

Effective completion of fieldwork dovetailed neatly with my next scheduled semester of research leave from my teaching post at the University of Leicester, in late 2010, which was earmarked for a start on writing up the project for publication. I was fortunate to be able to extend this to a full two years, through to summer 2012, through the generosity of grant funding from the Leverhulme Trust.

As part of this post-excavation plan, an additional short study season at Dura, to check points arising during writing up, was pencilled in for 2012. Additional objectives identified for this season included more detailed TS surveys of the military-built M7 and C3 baths outside the base per se. Civil war in Syria prevented this, but did not have a major impact on the project, although of course underlined the



Fig. 3.5. Ben Gourley, Jen Baird, and Dan Stewart conducting Total Station survey in 2008 for Baird's housing project and the military base research. R, the author working in the *principia* in 2010.

fortunate timing of the main fieldwork. I was able to make two short additional visits to the Yale archive in January 2011 and April 2012.

During this period the immense task of building the archival resource was largely completed, in combination with drafting Part II of this volume, the illustrated description and discussion of the base and its structures. However, as during the process it became clear that the base had been even bigger than thought, and had played an even greater role at Dura than had been appreciated, it also became evident that the resulting publication would exceed even the 200,000 words already in draft; however, part is explored in a separate paper (James 2018). Further progress had to await my next period of study leave in early 2016, which was fortunately extended to 18 months through the generous support of the Gerda Henkel Stiftung. This final writing-up period included a further visit to the archive in its new West Campus home in October 2016, which turned up drawings not seen before.

Dealing with Remains on Site

As elsewhere in the city, in the military base the Yale/French Academy expedition left all excavated remains exposed. Having suffered decades of erosion, the initial archaeological task was to examine and document their current state.

Visual inspection documented by blanket digital photography would generate a detailed record of the state of the monuments, capturing much detail not recorded by the more

sparing 1930s photo coverage. This would also immediately inform conservation efforts (e.g. in the A1 Temple of the Roman Archers, where identified subsiding walls were promptly consolidated by MFSED). Given the wholly unanticipated devastation of the site soon after, it also proved to have even greater potential future value. Total Station survey, to re-plan the military structures with precision unachievable in the 1930s, would also contribute substantially to MFSED's objective of creating accurate modern mapping of the entire city.

Since the contents of the excavated structures were removed long ago, the primary on-site task was examination and recording of building fabrics and constructional details, elevation information where walls survived much above foundation level, and especially layouts. While some buildings such as the *principia* and E3 bath still in part stood to several metres, in other areas little more survived than footings outlining building plans.

Much of the fieldwork, then, would comprise naked-eye inspection of the exposed remains, and their recording primarily by visual means. Recording also of course involved note-taking (Fig. 3.5, R), although much would comprise annotations on drawings which comprised the principal manually executed mode of documentation. Some specific questions of stratigraphy would be addressed through targeted cleaning and occasional small-scale re-excavation.

Not least, geophysical prospection offered the possibility of 'seeing' into the large unexcavated parts of the base, thereby adding entirely new knowledge. This was key to the larger objective of understanding the overall extent and

conformation of the base, which required as complete a plan as possible. A previous survey of the southern part of the city had demonstrated the promise of magnetometry (Benech 2007). The technique offered the possibility of generating something approaching a full plan, non-destructively, quickly, and relatively cheaply.

Integration of Site and Archival Data

Collating and integrating site and archival data was undertaken using Microsoft OneNote software, which permitted free arrangement of texts and images in a fully searchable format. Observations, questions, and initial interpretations were recorded in OneNote notebooks, organized by structure or area. The collection of digital notebooks became the primary tool for conducting post-excavation analysis, and was intended itself to evolve into the project's own archival resource. By the later field seasons initial conclusions were beginning to shape early drafts of the present volume, composed in Microsoft Word.

For the present project, then, apart from digital data (photographs, Total Station, and magnetometer readings), pencil drawings, and limited hand-written site notes, there was no single fixed primary record as such, but a dynamically evolving digital picture.

Work on the extent and conformation of the base typically involved a reflexive process, originally rooted in questions arising from critically reading the publications, leading to reconnaissance of the site, then detailed review of the archival data, followed by more work on the site, and more questions for the archive. This process was especially intensive during field seasons at Dura, with observations made on site during the day leading to review of archival records on computer in the expedition house in evenings, generating more site questions. It continued between seasons and afterwards, as site data was further compared with the archive.

Archival data and new fieldwork results were progressively integrated to generate detailed presentations of evidence and interpretations for each structure and area of the base, to gradually construct a new overview. This combination of approaches constituted the most efficient means of achieving project objectives within a reasonable timeframe. It provided an adequate basis for mapping the remains, and for developing new interpretations of the base, which could also form the basis for future fieldwork.

Dealing with the Published and Archival Record

The other key starting point was of course the expedition's publications—*Preliminary Reports*, relevant *Final Reports*, CRAI submissions, and a range of other papers and books. This also involved capturing the expedition's site mapping, especially Detweiler's great map of the entire city (Pl. VI), a loose folded sheet included with *PR 9.1*, based on a 1935

survey and plotting almost all of the excavated structures except those explored in the tenth season (Matheson 1993, 210). The base survey drawings for this also survive at Yale.

Behind the publications lay the expedition archive. As we saw, the archive of records at YUAG comprises several filing cabinets containing the surviving notebooks and site registers (also transcribed digitally); 'locus files' where surviving notes and photographic prints were collated by structure or city block; collections of glass and nitrate negatives; and a plan chest containing publication drawings and other artwork (Fig. 3.3). The bulk of the data collection comprised flatbed scanning of manuscript notes and typescripts, photographic prints and smaller drawings, and digital photography of larger illustrations. Collecting photographic data especially was immensely helped by access to Yale's digital scans of the photographic negatives, and to the accompanying database. Equally valuable was access kindly provided by Jennifer Baird to her database of the portable artefacts.

The expeditions and publications together contain a major body of 'legacy data' which offers both great potential and particular challenges (for an excellent example of working with this material see Baird 2014). A concept borrowed from the Information Technology world, 'legacy data' has been extended from its original meaning of digital data now hard to access because it is stored in obsolete formats or computer systems to refer to bodies of existing archaeological information. In the archaeological context the term remains especially bound up with digital approaches, which have focused on processing such data into forms suitable for computers, notably for Geographical Information System applications (Allison 2008). Early interpretations in the records and publications preserving the information are to be stripped out to 'purify' the data for new, digitally based analysis within contemporary theoretical and methodological frameworks (Kintigh 2006). In this approach, old interpretations and ideas are treated as 'contaminants' to be discarded as waste. Much of what follows constitutes an analogue to this; the records are reviewed in an attempt to establish what was actually discovered during the early expeditions, rejecting where there is cause the original excavators' interpretations of specific details, or the bigger city-wide picture which emerges in the publications. However, initial understandings, interpretations, and conclusions—perhaps to be thought of as 'legacy ideas'—are not simply to be combed out of the legacy data with which they are intertwined, and discarded. Yet this is too often their fate. Many of them will now be shown to be simply wrong in the light of later discoveries, or discredited by changing moral and ideological outlooks: the prejudices inherent in the writings of Rostovtzeff and Welles being cases in point. But a few might offer forgotten, overlooked, or ignored insights of significant value to new scholarship. Not only the data, but also the understandings and ideas which frame the primary accounts of the exploration of Dura also need to be properly reviewed.

Developing a Visual Approach

From the outset it was clear that matters of plan and layout were central to received understandings of the base. A central fieldwork objective was generating a set of accurate new plans of the individual structures, and of the base as a whole within the context of the city, to provide an armature for reviewing the archaeological data as a whole.

For most structures adequate new plans could not be generated simply through new recording at Dura itself. Decades of erosion and, in areas like the F3 bath, the original excavators' efforts to reveal earlier phases, meant that many important features as well as detail seen in the 1930s had been lost, while by 2005 much more was obscured by erosion and collapse debris or dense vegetation. A great deal of information, then, had to be taken from archival drawings and photographs. But conversely, it was not sufficient simply to tie in archival plans to the modern survey grid. For some structures no plan existed at all (e.g. the F/10th St arch). For others, surviving 1930s drawings were inadequate, or manifestly of variable accuracy. They had been executed using a plane table (Fig. 2.1, f), normally very accurate in the hands of Detweiler who went on to write a handbook of surveying based in part on his Dura work (Detweiler 1948), but potentially wildly inaccurate in less experienced hands, e.g. Brown's distorted plan of the actually orthogonal Temple of the Gaddé (Rostovtzeff 1938, fig. 8; Leriche 2016, 164–5).

A particular challenge was where more than one plan of an area survives, e.g. two of the A1 Temple of the Roman Archers, two of the E3 bath, and no less than seven of the *principia*. Reconciling the inevitable discrepancies and even contradictions between these, and clarifying the ambiguities of individual plans, was a primary task of the integrative phase of the project.

Consequently, a reflexive method was developed for creating the new plans. Archival drawings were scanned at Yale, and the visible remains on the site plotted by Total Station. In the UK Ben Gourley digitally manipulated the best archival plan of each zone onto the cloud of new survey points to create best-fit projections. These were the 'ground-truthed' at Dura, as paper prints were checked for measurements, corrected, additionally detailed, and annotated. The corrected drafts were then used as the basis for the final publication drawings, prepared in Adobe Illustrator.

Overall this technique worked well, although it proved difficult to fully exploit the millimetre accuracy of Total Station surveying. It had been anticipated that, while precise plotting of sharply defined elements such as stone thresholds would be straightforward, where mud-brick walls had dissolved exact measurements of wall lines would not be practicable without re-excavation. This proved true to an unusual degree in much of J7, where erosion of the mud and rubble fabric was so bad that rooms planned in the 1930s could no longer be discerned at all (Fig. 5.67). Yet

even masonry structures proved a challenge to plot precisely. Loss of plaster, often several centimetres thick, existing when the buildings were first recorded, made it hard to fix original positions of corners or lines of wall surfaces to the degree of precision sought. For example, despite construction in brick-faced concrete, the E3 bath block had suffered badly from destructive excavation practices exploring its drainage system, subsequent weathering plus, it seemed, more recent vandalism and looting. A proportion of the survey points across the base therefore had c.100 mm errors. Nevertheless, it was possible in most cases to create new plans accurate enough for reproduction at a scale of 1:100 or smaller.

To create the final publication drawings, where multiple archive plans of a building exist, all were superimposed and compared and, where on-site observation did not furnish a clear resolution to contradictions, judgement had to be exercised on which to follow. Similar reflexive methods also applied in other contexts, e.g. comparing details of magnetometry of unexcavated areas with seasonally varying surface indications in archival aerial photography, and scrutiny of traces on the ground.

The new plans generally had to present walls schematically, not stone by stone, because except for larger features such as thresholds, such detail was not originally recorded in the archive drawings. Neither had different materials always been distinguished or, where they were, conventions used were not always specified. In any case, erosion sometimes made it hard to verify such detail on the ground. The practice followed in the new plans of buildings and blocks is generally to use white for masonry of mortared rubble or concrete, and greys for mud brick, although most walls were composite. Variations on this are noted in drawing captions.

The unusually strong bias towards visual rather than textual evidence in the Dura data set fitted well with my own prior research career. From the outset, I have taken a special interest in archaeological illustration and imagery. A formative excavation experience was on the early mediæval settlement site at Cowdery's Down, Hants, UK, where remarkable structural details of elaborate timber buildings were revealed (Millett with James 1983; James et al. 1984). During that project the report on the contemporaneous Anglian royal centre at Yeavinger was published, an exemplar of the centrality of visual images to conducting and communicating archaeology (Hope-Taylor 1977). If I could never hope to match Hope-Taylor's penmanship, it proved a lasting inspiration. Subsequent research on, and presentation of the Cowdery's Down buildings remained a strongly image-led process, involving creation of reconstruction drawings. That project led on to a period of work as an archaeological illustrator, and an abiding interest in the role of visual representation in archaeology. At its most basic, physically drawing something, whether with pencil or computer mouse or graphics tablet, involves the closest attention

to its detailed form, making it much more likely the viewer will notice things which, by simply eyeballing, they would otherwise miss. I came to understand that drawing can be a part of the research process as fundamental as writing text (James 1997; 2015b). In developing my study of the military base at Dura, I realized that I was approaching the evidence in much the same way as we had at Cowdery's Down.

In this project I was studying structures many of which had lost most of their third, vertical spatial dimension, and which were also in a weathered state which made evidence of alterations, demolitions, and additions difficult to discern. I am here visually presenting them primarily as building plans which can of course be immensely informative, but which also have obvious limitations. They largely conflate four dimensions into two—although not completely as, where identified, phasing information expresses elapsed time.

While sound, smell, and taste remain very significant to us, built spaces are primarily experienced haptically (i.e. through tactile sensation, as we turn door handles and haul ourselves up stairs) and especially visually. It is through the eyes that most humans receive their most detailed and nuanced patterns of information regarding the conformation of fixed space which surrounds them, and movement within it. Archaeological fieldwork is also a sensory experience in which odours or sounds play significant if largely subliminal parts, while sight and touch strongly predominate, and in which words—spoken or written—are largely subsequent and consequent. We generally look to see what is there, walk around it to see it from different angles, and then may brush or trowel it, or (often more viscerally satisfying!) hit it with a pickaxe, all before we write or draw. Fieldwork rapidly becomes a reflexive process, between the archaeologist and the material evidence, and often a literal dialogue, between archaeologists in the field or subsequently writing it up in an office elsewhere. Nevertheless the evidence remains largely visual and tactile, although words—and, increasingly, numbers—as well as images are generated from it.

All this proved to be of central importance to the present project. Indeed, in retrospect I realized it had a profound role in my understanding of the site from the moment I first actually laid eyes on it. Having studied Dura intensively from texts, maps, and photographs, and thinking I already knew it well, when I first went there I was forcefully struck by several things. First were vistas and sight-lines, shaping both what was apparent, and what I realized was hidden: the near-perfect flatness of the plain on which the upper town lies, and the fact that the inner wadi, which defined the original Citadel and accommodated the nascent Hellenistic settlement, cannot be seen from the Palmyrene Gate. Moving into the city I was also startled by its size. I had internalized from my reading that Dura was not a large town by Greco-Roman standards, and I had a detailed prior grasp of its internal layout, while the city plans I had used of course bore metric scales; yet this intellectual knowledge was

overwhelmed on the spot by experiencing the actual space within the walls. Imprinted in my memory are the smell of earth and vegetation (it had recently rained), the crunch of dead plants underfoot, and in particular how long it seemed to take to walk the length of the main street from the Palmyrene Gate to the edge of the scarp where, at last, the inner wadi, Citadel, excavation house, and winding Euphrates came into view.

At Dura, alongside working on details of areas and individual structures, every day the fieldwork involved moving round the sprawling excavated remains. As I gathered the data, I found myself walking many kilometres a day checking points, examining alignments of relations between structures, and starting more and more to consider issues like sight-lines (emphasized or obscured), and the sheer physical effort required to move from one place to another, not least between wadi floor and plateau. This highlights the importance of the haptic dimension operating in partnership with the visual, the significance not just of manual touch and feel, but at the same time of experiencing the site through the soles of one's boots. Doing this emphasized the conformation of space; then moving around the site led me to think about experience of space; and further to consider how the space shaped lives through enabling, restricting, or controlling human movement and activity (e.g. at J2, reducing what had been the major D Street to a lane). It was only in retrospect that I realized I had been loosely reiterating theoretical themes of recent decades.

Self-evidently, a colossal amount has changed at Dura since the third century AD. Except for parts of the city defences the built environment long ago weathered to a continuous surface reflecting the underlying topography. The space of Dura's lower town, once a bustling maze of streets between River Gate and military base, was of course inevitably experienced very differently by a twenty-first-century archaeologist from a profoundly different culture, venturing out of the expedition house with camera, drawing board, and notebook into the now-silent empty inner wadi under the crumbling walls of the Citadel (Pls IV, XXI). On the other hand, some crucial things did remain the same as they were in the third century AD—or at least, similar enough, to inform us usefully about the past. The sky, lighting conditions, heat and cold, and probably weather patterns had not significantly changed. Wind-blown dust was doubtless a curse then as now. And crucially, the underlying topography of the site remains—its relief, and traces of its street network—providing a solid basis for academic reconstruction, as the skeleton of an extinct animal provided palaeontologists with the armature on which to reconstruct its outward form. The climb from the lower town towards the area around the *principia* on the plateau remains much the same as it was eighteen centuries ago. Elevations, distances, and directions remain unaltered, as does the physical effort to negotiate them.

Even allowing for the radical transformation of the place from living urban space to flattened archaeological site, this purposeful roaming around and over it, experienced through eyes and feet, gave a sense of the space and its human implications, offering insights unlikely to have emerged simply from scrutinizing images alone. The outstanding example of this for me was realization of the importance to the mature base layout, and its impact on the city, of the critical H St/8th St/Wadi Ascent Road junction. This arose less from pondering plans and air photos than from walking around and around the area, looking at the lie of the ground and the topographic features in combination with the recorded imagery, seeking to understand how people had ordered and moved through this space. Here the effort of ascending the wadi slope from the dig house several times a day, and seeing the plateau come into view, proved crucial in appreciating how the sloping road connecting upper and lower town led not just to the great N–S axis of H St, but also aligned directly on the start of the hitherto-unrecognized main cross-street of the plateau base zone, 8th St.

The approach to Roman military spaces consequently taken here differs from other recent projects on Roman military bases, which have mostly concentrated on the potential meanings of distributions of portable artefacts within them. This has produced some extremely interesting and important results, e.g. Allison's work which has looked at artefact patterns in general while especially considering the presence of women and children (Allison 2006; 2013), Birley's on how the artefact distributions at Vindolanda challenge the notion of the fort wall constituting a 'great divide' between interior and vicus in the middle imperial period (Birley, A. 2010; 2016), or Gardner's work on artefacts and spaces in later Roman forts in Britain (Gardner 2007, 99–105, 223; 2008), and Walas on social use of space in Roman forts (2015).

But as we have seen, Baird's work on the locatable portable artefacts from Dura as a whole (pp. 36–37) has suggested that artefact distributions, only partially and very imperfectly recorded anyway, would be of limited value for the purpose of investigating the base and its life before 250, as they likely primarily reflect the situation in the city after that date, when it had already undergone major shocks and transformations—above all apparent departure of the civil population. This critical conclusion throws the study back onto the fixed archaeology of the site: the built environment, of roofed and unroofed spaces with their fixtures and fittings, down to the texts on their walls—and the routes and spaces which connected them to each other and the outside world. Issues of movement or connectivity receive much less attention in the aforementioned works than use of space. However, I came to realize that my own experiences on site at Dura recapitulated in outline other developments in archaeological theory and practice over recent decades, including Tilley's *Phenomenology of Landscape* on seeking to enter

the landscape one is studying and experiencing it via the senses (Tilley 1994). With more specific regard to the study of ancient urban environments the so-called 'spatial turn' of the 1980s, with its emphasis on space and especially streets, was followed, perhaps inevitably, by a 'post-spatial turn' emphasizing movement within, for example, classical cities (Laurence and Newsome 2011). In their own right, the built spaces and urban landscapes may have a great deal to tell us which is not always fully appreciated. Dura offers a potentially vivid example for both Roman-era urban and military archaeology.

The Centrality of Built Space to Human Life

Studies of the Dura base and its occupants, while considering the physical remains, still often focus much more on the remarkable corpus of military inscriptions and papyri. Yet while verbal/textual communication is fundamental to life and culture, as anthropology and wider social sciences have shown, other dimensions of human experience are equally fundamental to who we are and what we do. These comprise practical phenomena we largely take as givens, and of which we may rarely be consciously aware. Humans are physical, embodied beings, effectively compounded with artefacts (Schiffer 1999, 2–3); material culture—from a bead to a city—comprises much more than an inert mass of props and sets constituting a stage on which humans perform. Rather we live our lives through and with artefacts, and create ourselves and our relationships with them. I first engaged with these matters when studying the equipment of the soldiers at Dura. I came to understand how quite humble objects—things like brooches and belt-plates—did not simply dress a soldier, they were *part* of a soldier, used actively to create and embody his sense of identity to himself, and to represent his status to others (James 1999b). Some now routinely characterize artefacts as agents in their own right (e.g. Gosden 2005). People certainly treat objects as though they have agency: we need look no further than Roman military standards.

Among the biggest artefacts humans create are buildings and urban landscapes. Interaction with our built environment constitutes a fundamental structuring process of our lives. We create the built spaces we need, but these then act back on us, shaping how we live. The houses and public buildings, streets and squares of a city like Dura facilitated human interactions, and made institutions manifest.

The human practice of forming identity groups, of categorizing ourselves and labelling others—along multiple dimensions like age, status, gender, religion, ethnicity, occupation, etc.—involves inclusion and exclusion. Division and control of space is one of the crucial ways in which social boundaries are asserted and maintained. Human-made places and spaces are created by those with the social power and resources to do so, and many are used to control others,

especially in strongly hierarchical cultures such as those of the slave-owning classical world.

The solid durability of built space, and its alliance with power, is experienced especially acutely by those who lack the means to challenge its control or change its fabric. This is epitomized by the closed gate, by what might be glimpsed through it and—often even more powerfully—what is hidden yet hinted at, beyond, for example, the closed doors of a temple's inner shrine. More subtly, there is the actively controlled entrance, allowing access into—or liberty to leave—certain spaces to some groups, while denying it to others. Access is often varied according to time of day (e.g. the closing of city gates at night) or other cycles such as religious calendars. There are both spatial and temporal dimensions to access and control.

As will be argued, the likely primary purpose of the 'camp wall' bounding the western part of the military base at Dura was to keep ordinary soldiers in, especially at night. For those designated as excluded, any act intended to challenge the bounds of built space constitutes transgression in the eyes of the included. It may be labelled by power-holders as trespass or burglary; in a military context, assault or siege if perpetrated by the enemy—or desertion, mutiny, or revolt if by subordinates. Such actions invite dire reactions. Space matters.

Creating built spaces probably always involves the changing of some human relationships as well as creating new ones, and conversion of much of the pre-existing urban fabric of Dura to a military base is a major example. These physical realities, of creating, altering and interacting with and within spaces over time, were and remain fundamental factors in creation of social communities and articulation of human relationships, whether collaborative or coercive. They were as important as the words spoken or the documents created within the built environment, or the texts fixed to its surfaces, and are equally worthy of the attention of investigators.

Building the Picture: Cumulative and Probabilistic Argument

The outcome of exploring the built environment of Dura's military base, and visual observation of stratigraphic and spatial relations within and around it, underlined the reality that much archaeological argument is inherently probabilistic, because the evidence is physically incomplete and its dating usually imprecise, limitations exacerbated at Dura by the issues relating to the weathering of remains and the nature of the archive explored above. At Dura some relationships between structures and features are certain, e.g. that the E7-18/19 sanctuary was built after the *principia* forehall, although wider considerations of layout and sequence of the observed remains in block E7 suggest it was immediately after (p. 86). Some interpretations of such spatial relationships, even where there is no direct physical contact between two archaeological features, are made with very high confidence, e.g. the way the G St piped water main skirted the E3 bath building makes it all but certain the latter already stood when the former was laid out. Others appear very probable, e.g. the suggestion that the D St, G St, and Lower Main St piped water mains supplying the M7, F3, and C3 baths respectively represent a single planned scheme of hydraulic provision created around the same time (presumably over a year or two). This case, and others, such as the case for F St forming a processional way from the agora to the Temple of Azzanathkona, also involve cumulative argument.

However, cumulative and probabilistic archaeological argument and 'fuzzy' dating can still offer resolution sufficient to address fundamental questions about the Dura base. Notably, there is the validity of the central received assumption that the creation of the military base was c.210. This supposedly divided Dura's Roman period into two distinctive phases, each roughly half a century in duration—chunks of time large enough to tackle by archaeological method.

Zooming In

Rome, the Middle Euphrates, and Dura

HISTORICAL SETTING: WORLD EMPIRES
AND A MODEST CITY

Rome, Parthia, and the Middle Euphrates

Dura-Europos was a product and ultimately a victim of the interaction of Mediterranean- and Iranian-centred imperial powers in the Middle East which began with Alexander the Great's conquest of the Achaemenid Persian empire in the later fourth century BC. Its nucleus was established as part of the military infrastructure and communications network of the Seleucid successor-state. It was expanding into a Greek-style *polis* during the second century BC, as Seleucid control was being eroded from the east by expanding Arsacid Parthian power, and threatened from the west by the emergent imperial Roman republic.

From the early first century BC, the Roman and Parthian empires formally established the Upper Euphrates as the boundary between their spheres of influence, and the last remnants of the Seleucid regime in Syria were soon eliminated. Crassus' attempt to conquer Parthia ended in disaster at Carrhae in 53 BC, halting Roman ambitions to imitate Alexander for generations. The nominal boundary on the Upper Euphrates remained, although the political situation in the Middle East remained fluid. Rome long controlled the Levant largely indirectly, through client rulers of small states, only slowly establishing directly ruled provinces with Roman governors, a process mostly following establishment of the imperial regime around the turn of the millennia. However, some client states like Nabataea still existed in AD 100 (for overviews see Millar 1993; Ball 2000; Butcher 2003; Sartre 2005).

The Middle Euphrates, in what is now eastern Syria, lay outside Roman control, although it is unclear to what extent Dura and its region—part of Mesopotamia, and Parapotamia on the west bank of the river—were effectively under Arsacid control before the later first century AD. For some decades, Armenia may have been the dominant regional power (Edwell 2013, 192–5; Kaizer 2017, 70). As the Roman empire increasingly crystallized into clearly defined, directly ruled

provinces, the contrast with the very different Arsacid system became starker. The 'Parthian empire', the core of which comprised Iran and Mesopotamia with a western royal capital at Ctesiphon on the Tigris, was a much looser entity (Hauser 2012). The Arsacid ruler was not an emperor but King of Kings, overlord of a complicated and fluid constellation of city states, principalities, and communities, notably the Jews of Mesopotamia. Regarded as generally less intrusive and heavy-handed than Roman imperial power, the extent of Parthian royal authority at any time depended on the strength and prestige of the reigning monarch. Given external threats not just from Rome but the north and east, and fratricidal regime dynamics comparable with the plots and intrigues surrounding the Roman imperial throne, the strength of Arsacid control was highly variable. In times of central weakness, geographically peripheral areas especially, such as Dura lying close to the Roman world, might find themselves effectively independent of Ctesiphon.

From the later first century BC one small state in particular, halfway between the Levant and the Middle Euphrates, played a large role in Dura's history: the oasis city of Palmyra. Although nominally in the Roman orbit, its isolation made its political position as ambiguous as its geographical location, with its citizens playing prominent roles in both empires (Smith 2013). Palmyra's intriguing position, at the same time within and between both Roman and Arsacid worlds, undoubtedly affected Dura's already liminal status during the first century AD and beyond, as Roman emperors increasingly developed expansionist ambitions in the Middle East.

Status quo ante: Dura before Rome

Around 300 BC Seleukos I founded a royal garrison (*phourion*) in a fortress occupying the site of Dura's later Hellenistic Citadel (Leriche 1997b, 193–8; 2010, 31–3; Kosmin 2011; Leriche et al. 2011, 23). The new stronghold lay roughly halfway along the road between the royal capitals of Antioch on the Orontes and Seleucia on the Tigris. Recent fieldwork indicates the original Macedonian military colony spawned a

small unwallled settlement in the shadow of the fortress. Around the middle of the second century BC this nascent Europos expanded onto the adjacent plateau where a Hippodamian street grid defined a much larger city (Leriche 2003, 176; 2010, 29; Leriche et al. 2011, 25), although it would always remain very modest by comparison with Palmyra or Hatra, let alone Seleucia on the Tigris or Ctesiphon. Constructing a wall circuit and rebuilding the original fortress as a citadel all involved massive quarrying, extensively reshaping the inner and S wadis, and river cliff (Bessac 2004). The new walls boasted two major portals, a River Gate at the bottom of the inner wadi leading to the Euphrates plain and Babylonia, and the so-called Palmyrene Gate on the plateau, leading to Palmyra, the Upper Euphrates, and northern Syria. The gates were at opposite ends of the line of the Main Street of the new urban grid, although the steep slope of the inner wadi, and the irregular layout of the early urban nucleus in the wadi, meant that the most direct route from one to the other involved stairs and a devious course. The two branches of the inner wadi, N and S, offered more manageable ascents linked to Main St via the great perpendicular H St (Figs 1.1 and 1.12). There was also a small gate leading into the S wadi gate between Towers 8 and 9. The defensive enceinte was built in stone except for the N part of the wall facing the plateau, which was completed in mud brick (Pl. V). This is thought to have been an emergency measure in the face of Parthian expansion swallowing up Seleucid territory.

Dura is conventionally thought to have fallen under Arsacid suzerainty c.113–110 BC (for the uncertainties see Gaslain 2012), but this now looks to be a major oversimplification, ignoring the prominent regional role of Armenia in the earlier first century BC (Edwell 2013). However, the city appears to have been fairly firmly in the Arsacid political orbit by the turn of the millennia, and subsequently prospered as a regional administrative centre, most of its interior becoming built up (Leriche et al. 2011, 25–6). Always maintaining a distinctly Greek public character (Millar 1998), it nonetheless exhibited a strong Syro-Mesopotamian component to its population and culture: the city venerated Greek deities but these were largely identified with Semitic equivalents. This cultural duality was represented in the city's two names, used in parallel.

On the plateau outside the W walls a sprawling necropolis developed, including some tower-tombs similar to those of Palmyra, although most burials were underground, multiple inhumations in chambers carved into the soft underlying gypsum. Any extramural suburbs on the banks of the Euphrates, such as river port facilities, probably had to be frequently rebuilt following spring floods. Any traces have long since been obliterated by the meandering river channel.

Under Parthian rule, Europos retained its Hellenistic constitutional structure, official business being conducted in Greek, under social leaders with Greek or Macedonian

names. It has been long been generally accepted that 'descendants of the first colonists retained their predominance in society' as an apparently exclusive elite of *Europaioi* (Leriche et al. 2011, 26; Rostovtzeff 1938, 15, 21). However, it may be that the Greco-Macedonian heritage of much of Dura's elite was partly or largely invented tradition to establish legitimacy rather than genetic reality, following centuries of intermarriage with the local population (Pollard 2007; Andrade 2013, 210–32; Kaizer 2016a, 20). Although as may be expected in a male-dominated society, the inscriptions of the Temple of Azzanthkona especially attest prominent women of the social elite (Arnaud 1997). Foremost amongst the *Europaioi* was a 'hereditary *strategos* and *epistates* who ruled the city and its surroundings' (Leriche et al. 2011, 26), i.e. a dynast whose power derived from holding the combined offices of chief civic magistrate, and of royal superintendent through the favour of the Arsacid King of Kings (Arnaud 1986, 147). During the second century these rulers appear almost always to have been drawn from a single family, constituting the dynasty of the House of Lysias (Arnaud 1986, 147; Leriche and El 'Ajjī 1999, 1326–8).

Civic authority was physically manifested not around the agora in the centre of the city, but on a spur of plateau in the SE overlooking the River Gate, sometimes referred to as an 'acropolis' (Rostovtzeff 1938, 35). Here, perched on the edge of the inner wadi and dominating the S skyline of the old lower town, stood the massive bulk of the so-called *Strategeion* or 'Redoubt Palace', interpreted as the public seat and offices of the *strategos kai epistates* (Leriche 2003, 176). To its rear lay the Temple of Zeus Megistos, probably the main civic sanctuary (Leriche and El 'Ajjī 1999, 1333; Kaizer 2009, 170; Leriche 2016, 168–70), and behind that, a sprawling mansion occupying the whole of block D1 believed to be the residence of the hereditary ruling family: the literal House of Lysias (Leriche and El 'Ajjī 1999, 1333; de Pontbriand 2012; Baird 2014, 285–99). This focus of temporal and religious power was articulated around 5th St, which linked it to the main urban artery of H St. At their junction lay the Temple of Artemis in H2, which at least in Roman times accommodated the *bouleuterion*. 5th St also linked the centre of power to the lower town, its I St intersection leading to the relatively practicable sloping road down into the S branch of the inner wadi, passing immediately below the massive *Strategeion*. Indeed, the old lower town appears to have formed the focus of a great architectural theatre of power in late Hellenistic and earlier Parthian times.

It has been proposed that late Hellenistic Dura had been physically dominated by twin poles of civic and royal authority, facing each other across the inner wadi. The *Strategeion* was the focus of the centre of civic power, which 'faced its military centre—the Citadel and its Palace, which may have been the residence of the Seleucid governor of Parapotamia' (Rostovtzeff 1938, 35) or at least a royal

epistates for Dura (Leriche et al. 1997; Leriche and El 'Ajjī 1999, 1343). In earlier Parthian times a new Citadel Palace arguably manifested Arsacid hegemony, although by the turn of the millennia, when this had been ruined by earthquake and/or cliff collapses, the continuing office of *epistates* was usually also entrusted by the King of Kings to Dura's civic *strategos*. However, this historic physical symbolism remained manifested in the city's fabric, and may later have had significant implications for the topography of power under Roman hegemony.

Falling under Parthian rule at a time when it had not completed the process of evolving from a Hellenistic military garrison to a much larger civil *polis* may also explain why, despite its Greek name and constitutional form, the city appears never to have acquired a number of basic institutions and facilities common to Greek *poleis*. Leriche has argued that it possessed a council, *boule*, already in Parthian times (Leriche and El 'Ajjī 1999, 1333; Leriche et al. 2011, 26), but there is no clear evidence for its existence before the Roman period (Gregoratti 2016, 25). Neither did the city ever fully develop its agora, suggesting that it did not develop the institution of a general political assembly. A large squarish agora was designated on the plateau in the middle of the walled area, although subsequently, while this zone did successfully develop into a commercial district, it was heavily built up and has often been deemed more to resemble a bazaar or souk. Neither has a theatre been identified, although it remains just possible that one still lies unidentified in the wadi slope facing the Citadel (Downey 2000, 160). Similarly, no evidence was found of a *gymnasion* (Downey 2000, 160), although a possible location has now been identified in the course of the present project in block F3.

In fact most Durene material culture, portable as well as architectural, developed along indigenous Syrian and Mesopotamian lines. While the city's patron deity was Zeus, and its official founder, Seleucus Nikator, was also revered throughout its history, a major burst of temple building c.50 BC–AD 50 saw establishment of sanctuaries based on Babylonian forms, in line with the pattern seen in the religious epigraphy and iconography, of Greek deities mostly also identified with local or regional Semitic equivalents (Downey 1988, 88–129; 2000, 155). The *habitus* of the population is also expressed in Dura's housing tradition, which similarly comprised courtyard dwellings of indigenous rather than Greek form, even if some did retain Hellenizing details such as plaster friezes around the upper walls of their showiest room (Baird 2014, 29–34, 53). Even the one-and-a-half-city-block-sized residence of the ruling dynasty, the D1 House of Lysias, was essentially a residence of local form writ large.

Much of the reason for this cultural conformation lay in the composition of the city's population in the Arsacid period. Whatever the biological reality of the Greco-Macedonian descent of the political elite, the great majority

of the townsfolk were of regional origin, mostly speaking dialects of Aramaic, to whom the city was Dura. Most presumably came from the city's own rural hinterland, while some urban cults imply immigration from neighbouring communities, such as Azzanathkona from Anath downriver (c.120km away in a straight line, almost twice that by boat down the meandering Euphrates), 'attracted by the opportunities that the urban activities and merchant businesses were able to offer' (Kaizer 2016a, 20), and because Dura was the local centre of political and social power. Leriche has argued that cult buildings constituted the central places of immigrant communities settled in Dura, expressing their presence and continuing identity (Leriche 2016, 181), although this is not entirely clear. The most important 'expatriate community' was certainly the Palmyrenes, already a significant presence in the last decades BC, probably looking after their city's commercial and strategic interests in trading the produce of the fertile valley lands, more than its famous caravan trade which probably bypassed Dura to the south (Dirven 1999, 8, 36, 38–44; Kaizer 2017, 84–5).

Indeed, there is no evidence that Dura was the 'caravan city' Rostovtzeff had imagined (Rostovtzeff 1932). Rather in Arsacid times it developed into a centre of governance and commerce for the 'world of villages' (Kaizer 2017, 75–80) of a large stretch of the rich river valley, and probably the surrounding steppe, with connections by water and land downstream to Babylonia, up-river into Roman Syria, and across the steppe to Palmyra and Hatra.

Prelude and Annexation

Dura first fell under Roman control during Trajan's attempted conquest of Parthian Mesopotamia and Babylonia. This episode was attested by a triumphal arch built on the Plateau 1.7km W of the city's Palmyrene Gate, straddling the road towards Antioch. Its inscription reveals that it was built c.116 by *legio III Cyrenaica*. I have argued elsewhere that this commemorated the field of an otherwise-unknown Roman victory over a Parthian army just outside Dura (James 2015a). Perhaps in the aftermath the city rapidly came to terms with the Roman victors, and opened its gates, explaining lack of evidence for the violent sack which would otherwise be expected. Roman occupation was, however, brief. An inscription from the city dating to 116–17 records Roman looting activities during their withdrawal following abandonment of Mesopotamia (*PR* 7/8, 129–30, no. 868).

During the following half-century Dura was apparently again at least nominally under Arsacid sovereignty. This would change forever in the 160s, which looks to have been a decade of upheaval and disaster for the city, bringing an earthquake, apparent conquest, and probable plague.

At about 10 a.m. on Oct 26–7 AD 160, Dura was struck by an earthquake, subsequently commemorated by an inscription

set up by the city authorities in the Temple of Bêl (Inscription H2: *PR* 2, 86–90). We know nothing of casualties, although the inscription indicates the event was far from trivial. Archaeologically attested collapse of the city wall along the N wadi was occasioned by this tremor, rebuilding of the defences being accompanied by extensive remodelling of the adjacent temple of Azzanathkona datable to exactly this period. Damage elsewhere could have been significant, but with evidence cleared or erased by later rebuilding. It may have brought down tower tombs in the necropolis (*PR* 9.3, 142, pls XXIV, LXIII, 1). The true impact of the earthquake thus remains an imponderable.

Potentially more devastating could have been definitive Roman military annexation, generally believed to have occurred AD c.165. An episode during C. Avidius Cassius' campaigning in Parthia on behalf of Lucius Verus (Birley, A. R. 2001, 130, 140), the precise date and circumstances of the second and permanent Roman annexation of Dura remain obscure (Edwell 2008, 116). Lucian mentioned a Roman victory over the Parthians in a 'Battle of Europos' (*How to Write History*, 20–4), which Cumont suggested marked Roman takeover of Dura (Cumont 1926, lii–liii, lxvi), but Lucian was likely referring to another Europos much further up the Euphrates (Edwell 2008). Nevertheless, archaeological traces along the W defences, including subsequently repaired damage to the city walls and a siege mine detected S of the Palmyrene Gate, have been ascribed to a Roman assault on Dura ordered by Cassius (Leriche 1986, 79–80; Leriche and Al-Mahmoud 1997, 10; 'Abdul Massih 1997, 52–4). However, it is not clear why the traces of assault might not be of e.g. Trajanic date. Armed resistance commonly had dire consequences, as the Romans routinely sacked cities which resisted siege. No evidence of such a catastrophe has been found, so Dura was apparently treated as a 'liberated' Greek city, not a (re)conquered enemy or rebel town. Nevertheless, the imperial takeover inferred c.165 certainly marked one of the most important days in the city's history, bringing with it uncertainties, anxieties, and doubtless unwelcome changes, even if little or no violence.

Dura under Rome

If bloodless, Roman annexation may, nonetheless, soon have been followed by traumatic mass deaths. Rome's armies withdrawing from Ctesiphon were reported to have brought back with them from Parthia epidemic disease: the 'Antonine plague' which then rampaged across the Roman world (Duncan-Jones 1996; Scheidel 2012). There is no direct evidence, but this epidemic may well have significantly reduced Dura's population at the outset of Roman dominance. Smith has suggested that a three-decade hiatus in records of Palmyrene caravan trade from 161–93 was initially due to war, but largely the result of the devastating impact of plague inducing demographic collapse in the region (Smith 2013, 80).

Dura became a city of the province of Syria Coele, and by 254 had acquired the status of a Roman *colonia* (*P. Dura* 32). When the grant was made is unknown. Leriche has argued it was very late (Leriche and El 'Ajjī 1999, 1334–5; Leriche et al. 2011, 27), other that it was perhaps significantly earlier (Millar 1990, 55), possibly under Severus (Sartre 2005, 186, 196). Once denoting a settlement of Roman veterans, this had become a general honorific title bestowed by the emperor on favoured cities. However, imperial soldiers were indeed responsible for the biggest changes affecting the city in the Roman period.

Results of a review of the textual evidence for the composition and development of the Roman garrison are discussed in Part III, but here the received view may be sketched out. The Roman military presence was initially in the form of Palmyrene allied troops, by the later second century supplemented by a regular Roman auxiliary regiment, *cohors II Ulpia*. While the imperial authorities may have presented Roman takeover as liberation of a Greek city from Parthian barbarians, the garrison maintained the empire's grip on the city and the Middle Euphrates. Epigraphic dates show that the *principia* and other key structures of the Roman military base were erected c.210–16, by which time the garrison comprised elements of the legions of Syria Coele, *IV Scythica* and *XVI Flavia Firma* and the auxiliary *cohors XX Palmyrenorum*. This last was, in size if apparently never formally in name, a milliary *cohors equitata*, i.e. a thousand-strong combined infantry and cavalry formation, with the refinement of a dromedary troop. Small detachments of *cohors XX* were outposted in secondary stations along the Euphrates.

The epigraphic record has been taken to attest significant expansion of Dura's garrison at the very end of Severus' reign and the beginning of Caracalla's sole rule, accompanied by major expansion and formalization of its base. There are other examples of Severan forward deployment of garrisons including legionary detachments, e.g. in North Africa (Bu Njem, *Gholaia*: Rebuffat 2000). More specifically, overhaul of Dura's garrison and base were a consequence of Severan annexation of territory to the N as far as the Tigris in 195, leading to creation of the new province of Mesopotamia with its own army, including legions (Speidel, M. A. 2007). This involved wider regional provincial reorganization, when Osrhoene, initially attached to Syria Coele, was reassigned to the new province, uniting Rome's trans-Euphrates possessions into a single entity. This transfer resulted in redeployment of the two Syrian legions, the likely trigger for transfer of vexillations to Dura (Speidel, M. A. 2007, 205–6). However, the chronology of these events is obscure. The decision to send legionaries to Dura must have been made by 210, and perhaps earlier. King Severus Abgar of Edessa, whose deposition has been thought to mark general change in Osrhoene, was only removed c.212–13 (Millar 1993, 473); however, Speidel suggests that he was only king of Edessa, not of Osrhoene as

a whole, so the provincial transfer and ensuing military reorganization could have happened at a different date (Speidel, M. A. 2007, 205).

Severus died in York in February 211, although Caracalla had long been co-Augustus (as Geta became from 209). The renewed building programme at Dura probably got underway in Severus' final year, and was completed under Caracalla (Geta being murdered in December 211). However, even if it began before the start of Caracalla's sole reign, the garrison changes and construction programme at Dura around 210 may have been entirely a Caracallan conception and enterprise in the literal sense. It has recently been argued that numismatic evidence indicates an additional, hitherto unknown eastern campaign by Caracalla in 206, the plausible motive for his second imperial salutation now dated to 207 (Burnett 2016, 88–90); it is very tempting, therefore, to suggest that a consequence of this imperial *adventus* was the transfer of Osrhoene, leading to redeployments including those to Dura.

The civil town continued to be a publicly Greek polity in the Roman era, while becoming even more culturally diverse, with appearance of Jewish and Christian communities. However, there were major changes, notably removal sometime in the early third century of the old Lysiad dynasty and abolition of the double office of *strategos kai epistates*. The old *Europaioi* with exclusively Greek personal names (although sometimes with alternative Semitic names) also effectively disappear from the textual record. During this period the city possessed a *boule*, but the city's constitution is uncertain until its status as a Roman *colonia* is attested in 254.

Repeated military humiliation at Rome's hands precipitated collapse of the Arsacid Parthian regime, to be replaced not, as a succession of Roman emperors had dreamed, by further eastward expansion of their dominion in the footsteps of Alexander, but by a new Iranian power: the Sasanian empire. Much more aggressive and, it seems, more militarily effective than the Arsacid regime, from c.230 the new Sasanid dynasty forced Rome onto the defensive in the East. Herodian recorded the first Sasanian king Ardashir raiding Mesopotamia, plundering and attacking Roman stations on both Tigris and Euphrates (Herodian 6.2.5: *PR* 4, 114). His first big raid was in 230, prompting response from Severus Alexander (Sartre 2005, 343). Whether this episode threatened Dura directly is unknown, but new mud-brick rampart access stairs at Dura have been dated to around this time (Gelin 2000, 321, 335), indicating precautionary measures and an enforced shift in the military role of the city to include strategic defence as well as offensive-logistic activities (below). There was an actual Sasanian attack of some kind on Dura in April 239, as a dated graffito records that 'the Persians descended' (*PR* 4, 112–14, no. 233b; *PR* 9.1, 176–85, no. 939; *FR* 5.1, 283 n. 6). There is no evidence that Sasanian troops yet assaulted the walls, but they presumably ravaged Dura's territory. Very soon after this the Sasanian destruction of Hatra, which had beaten off no less than

three sieges led by Roman emperors, underlined Iranian military capacities. Henceforth Dura's near-frontier location made it permanently vulnerable to warfare between the empires.

The Roman Military Presence: Purpose and Terminology

Leaving aside transitory military visitors from individuals to entire armies passing through the city, for almost a century substantial bodies of imperial troops were stationed at Dura. For some auxiliary formations, it was the site of unit headquarters and a regimental depot for decades. For legionary contingents, Dura was a secondary outpost from their home bases on the Upper Euphrates; perhaps these vexillations or their personnel rotated home after a few years, although reference in 254 to the 'local vexillation' of *IV Scythica* may suggest effectively permanent stationing of what was becoming an independent unit, a process of legion fragmentation characteristic of the period. How should we best refer to the body of *milites* stationed in and posted to the city, and what should we call the zone in which, when not on exercise, assignment, or campaign, they lived and worked?

If the soldiers themselves had a collective term to describe themselves, it is not recorded. The surviving texts preserve the term *numeri* ('military units') to refer to some or all of the resident contingents, in the context of command (at some stages they were under a *praepositus numerorum*: *PR* 2, 83–6, inscription H1). However, the records of *cohors XX* suggest that there was normally no single commander at Dura, but rather separate chains of command for auxiliaries and legionaries leading back to the provincial governor, the resident *numeri* usually being autonomous. More than one contingent commander as the norm at Dura may be expressed in the twin tribunals of the *principia* cross-hall. All this reflects the reason for stationing soldiers in the city; while the security of their home station against any threat to its walls or on its streets was a basic task, until its later years Dura was primarily a place to operate *from*, at the behest of the provincial governor/army commander of Syria Coele.

The garrison's immediate purpose was evidently direct military control of the Middle Euphrates, something underlined by the papyrological evidence for outpost of substantial detachments of *cohors XX Palmyrenorum* at secondary stations both upstream of Dura as far as the confluence of the Khabur, and 130km downstream as far as Becchufayn, modern Kifrin in Iraq (Gilliam: *FR* 5.1, 27; Fink: *FR* 5.1, 44, and fig. 8. Outposted vexillations are mentioned in e.g. *P. Dura* 64). This meant that a significant fraction of its manpower was routinely away from the city.

The routine business of Dura's imperial troops, then, lay beyond the walls, in securing and controlling Rome's possessions on the Middle Euphrates, and monitoring potential threats to imperial interests across a wide area; this involved

different contingents with different roles and ways of operating, which it was convenient to base jointly at the regional node of communications and economic activity.

However, doubtless another major strategic purpose of developing the Roman military establishment at the city, especially in the 210s, was to provide a forward operating base for further imperial aggressions into Parthia (Rostovtzeff 1938, 26–7), which for Rome would have disastrous and unintended consequences. With the fall of the Arsacids and the rise of Sasanian power Dura rapidly changed roles, from a regional military HQ and forward operating base supporting expansionist adventures down the Euphrates, to being one of Rome's most advanced—and increasingly exposed—military stations on the line of potential Sasanian invasions ascending the river corridor.

Dura's period of Roman rule, then, spanned a profound shift in the city's strategic situation, from regional centre for imperial forces on the Middle Euphrates and forward operating base for aggressive operations in Babylonia, to frontline defensive stronghold. Archaeologically, this shift is to be seen in measures to improve the city defences, e.g. construction of new mud brick stairs to the ramparts, dated by Gelin to the 230s (2000, 321, 335), but not obviously within the base itself. It has long been believed that in this period a new standing regional military command, that of the *dux ripae*, had been appointed, with his HQ at Dura (Gilliam, J. F. 1941), but this has now been convincingly discredited (Edwell 2008, 129–33). There is no clear evidence for a unified military command at Dura, although one may be inferred in the 250s from the massive preparations to withstand anticipated assault, and the siege itself.

To collectively describe the soldiery, in his key discussion of the composition of the Roman military forces at Dura, Gilliam simply used the term 'garrison' (*FR* 5.1, 24–6). This is not an entirely satisfactory term, as it tends to connote a body of soldiers dedicated primarily to point defence, e.g. of a medieval castle. It also suggests a unified body of troops under single command. None of this accurately describes the Roman military presence at Dura, at least until its very final years. However, in the absence of any more suitable simple alternative, 'garrison' is adopted here.

With regard to describing the military station, the records of *cohortes XX Palmyrenorum* refer to its *hiberna*, 'winter quarters' (e.g. *P. Dura* 89.i.5; 11; ii.5), which chimes with an ethos of expecting to operate mainly beyond city walls, although this is in the unit-specific context of a regimental report, not referring to the town's military zone as a whole. Other texts refer to soldiers' *castra* (notably *P. Dura* 55.a.8), but this is also a generic term, a plural which in context refers to one or perhaps more defended military stations in the region, including Dura in the sense of a walled place. We again need to opt for English terms.

The excavators tended to use 'Roman camp', which other commentators have followed. Perkins later used *campus* of

the whole military area (Perkins 1973, 27), perhaps in an unconscious conflation of the Roman term for an exercise ground, attested at Dura, with the modern idea of military 'camp' from which it was descended (an error especially understandable as the application of 'campus' to an area of land studded with buildings comes from American academia). Pollard wrote of a 'military quarter', albeit in quotes (Pollard 2000, 46, 48). Here, for the built space, 'military base' is generally preferred because, like *hiberna*, it connotes what the site was mainly designed and used for: somewhere for imperial forces in the region to operate out of.

The Chaotic 250s, Destruction and Abandonment

The last years of the city, the possibility of a first, transitory Sasanian occupation, and the documented transformation of the city interior by encasing the W city wall in a massive rampart were discussed above (p. 36). Traces probably to be connected with these events were identified in the base area. For example, before the area was buried by the rampart the camp wall had been broken through on the line of Wall St (Fig. 5.58, L), perhaps during a first Sasanian occupation or by the returning Roman garrison because departure of the civil population made the wall redundant, and an obstacle to tactical movement. A similar explanation may be offered for the camp wall sequence at D St, where it had apparently been demolished and then roughly rebuilt before the city fell. Similarly, a rough dry-stone repair to the E wall of the Temple of Roman Archers was perhaps post-siege 'squatter' activity, closing a breach made after decommissioning of the temple, during the proposed first Sasanian occupation or by the final Roman defenders, when its steps had become a through route from the old *campus* zone to the N Citadel entrance.

The anticipated Sasanian siege came in c.256, its course being, in parts, well understood (Leriche 1993), and recent research has added to the picture. A revised account must await publication of further MFSED work on the Sasanian siege camp and assault ramp. However, my own archival research inferring Sasanian use of poisonous smoke ('chemical warfare') in the struggle for the mines beneath Tower 19 (James 2011b), provides additional testimony for the technical mastery of logistics and Greco-Roman poliorcetics, as well as the ferocity and determination displayed by the early Sasanian army, which here outmatched those same qualities long exhibited by the Roman military. We still do not know how the city fell.

The present project did, however, reveal further evidence, for the ultimate fate of the military base area during the siege. Excavation in 2005 of the apparent E end of the 'camp wall' on the line of D St resulted in the unexpected discovery of a row of iron projectile heads, representing a small stack of catapult bolts, placed in the corner formed by the E facade of D St and the N face of the camp wall (Figs 5.61 and 5.62).

This would appear to be a stock of ammunition for a light catapult on the base perimeter, positioned to shoot down D St. It offers dramatic testimony of preparations for street fighting, and a last stand by the Roman garrison inside their base.

Frank Brown's notebook recording his excavation of the military housing in nearby E8 documented two articulated skeletons, one of a 'youth or girl', the other still with some bronze armour scales, in different rooms of the block. These bodies (sketched but not otherwise recorded or preserved) may be identified as victims of the Sasanian sack of the city (Fig. 5.64). That they were neither removed for burial nor disarticulated by scavengers suggests the buildings in which they were interred rapidly collapsed over them.

Parts of the city, including the *principia*, were certainly burned during its fall, amid a general sack. However, it appears that within a short time the Sasanians withdrew, leaving Dura empty but still partially standing. Baird observed thick layers of owl pellets on some floors, indicating some buildings were abandoned intact, their roofs surviving for decades before collapsing (Baird 2012b, 318).

The Site after the Siege

Dura ceased to exist as a city c.256, and was described as abandoned by Ammianus who visited the site with Julian's ill-fated army a century later (*desertum oppidum... Duram desertam*, Amm. 23.5.8, 24.1.5). However, the site was not completely devoid of human habitation: its desolation attracted Christian hermits (Cumont 1926, lxviii), while the fertility of the river plain saw village-scale occupation near the old River Gate in Sasanian times (Saliou and Dandrau 1997). Hermits and farmers were perhaps responsible for the detected traces of 'squatter activity' in other parts of the site, notably demolition of some walls and rough rebuilds of others in the A1 Temple of the Roman Archers, which evidently post-date Roman military usage, but precede the engulfing of the structure by material washed down the wadi. Traces of a small Arab settlement were identified in the Citadel (Leriche et al. 2011, 22).

Nevertheless most of the town, especially the districts on the plateau including the heart of the military base, were left largely untouched by human activity over the ensuing sixteen centuries and more. The city was not re-established, probably because during the centuries following its destruction, the region wherein it lay was de facto 'no man's land' between the Roman and Sasanian empires (Blair and Bloom 2011). Roman power now stopped at the new fortress of Circesium, at the confluence of Khabur and Euphrates upstream of Dura. It was only with the rise of Islam, destruction of the Sasanian empire, and the driving of Roman (Byzantine) power back beyond the Taurus that the Middle Euphrates ceased to be a borderland. The Euphrates road which had given Europos its initial *raison d'être* was

reestablished across the site. This road, in use through Ottoman times and beyond, linked Iraq with new towns like Abu Kemal and Mayadin which replaced Dura as regional urban centres.

MATERIAL REALITIES: NATURAL AND HUMAN ENVIRONMENT

Nature of the Place: Geology, Topographical Setting, Climate, and Environment

Receiving up to a hundred millimetres of rain a year, the site of Dura stands not in desert but on dry steppe (Geyer 2011; Rousset 2011), and dominates the wide, rich alluvial plain of the Euphrates (Pl. III). In summer temperatures exceed 40°C, in winter they can fall to freezing. Strong westerly winds often batter the site, with frequent dust storms. Conditions seems to have been generally similar in Roman times.

Dura's walls encompass a stretch of the edge of the near-perfectly flat rocky plateau bordering the south side of the Euphrates valley (Fig. 1.4). The surface of the plateau, at an elevation of c.220m above sea level, comprises a c.1m-thick layer of iron-hard limestone, overlying deep strata of much softer gypsum (PR 9.2, 2; Geyer 1988). The Euphrates, trending generally SE, has carved a channel several kilometres broad at Dura, filled with fertile silts (Fig. 1.11). This wide stretch of valley runs far to the N past the confluence of a major tributary, the Khabur (or Chab(o)ur), and ends c.35km to the S, where the valley narrowed markedly, near Abu Kemal and the modern Syrian/Iraqi border. Downstream of this point, although forming a corridor linking Syria and Babylonia (Edwell 2008, 30), the Euphrates is more difficult for passage of armies. However, the great stretch of broad river plain which Dura once dominated constitutes a linear oasis then as now ideal for irrigated cultivation, comparable to the Nile valley.

The Euphrates is a highly dynamic river due to its fast current and periodic floods. Aerial photographs show that since the 1930s, opposite Dura's N perimeter, it has shifted c.100m W, bringing another of its episodic periods of undermining the plateau forming the southern edge of its valley here, where it has created a series of cliffs c.35m high (Fig. 1.15). Even though modern damming activities have somewhat calmed it, erosion continues: there was a massive cliff-fall just N of the city shortly before 2010. Run-off from the occasional but ferocious winter rains has cut a series of wadis through the cliff line (Fig. 1.4). Two of these came to define a promontory of plateau edge some 800m wide and several hundred metres deep. Within this area, a third, sharply bent wadi left a narrow finger of plateau overlooking a relatively gentle internal slope from river plain to high ground. This topography created a practicable route for people and animals to move between the two local

environments, but dominated from the outcrop above—a natural stronghold which gave Dura its indigenous name, and formed the site for the initial Hellenistic fortress (Stephens 1937; Leriche et al. 2011, 23). Subsequently, building a wall linking the flanking wadis defined the area of the expanding civil town.

It is uncertain where the meandering river ran whilst the city stood, although it is unlikely to have moved very far from the bottom of the cliff since antiquity (Geyer 1988, 289–90). Evidently there were major cliff-falls during the life of the city, although we cannot say how far these were due to active river erosion or to earthquake activity.

Raw Material for the Base: The Built Fabric of Pre-Roman Dura

Dura's existing late Parthian-era urban landscape was largely preserved and adapted for use of the Roman military base. Even the new structures were built at least partially using local materials and techniques (on which: Allara and Saliou 1997).

Most buildings, domestic and public, were single storey, although a proportion, and not only those buildings terraced into the Wadi slopes or built against their quarried faces, also had a built upper storey (e.g. the great E4 house). Houses (on which, see Baird 2014), typically possessed a staircase leading to the flat roof which, as was the practice in later times, presumably served as additional working and living space, perhaps furnished with lightweight temporary superstructures for summer shade. Dwellings varied considerably in size and shape, but generally were squarish courtyard structures, more or less roughly conforming to the orthogonal geometry of most city blocks, with a single street entrance. Most rooms opened directly onto a central court, the main circulation space and location of many basic domestic activities, particularly food preparation. Characteristically, the court was not directly visible from the street, while external windows were small and high; privacy and security were priorities. Houses commonly possessed a relatively large 'principal room' with axial doorway on one side of the court, commonly the shaded S. It was often lined with benches and central to a suite of private rooms.

Indeed the flat plateau on which most of the city stood, and street grid dividing mostly single-storey buildings, did not make for many grand vistas except along major streets, and even some street lines were partly or wholly blocked, notably in and around the agora, and adjacent to some temples. The views across the inner wadi were exploited to some degree, where the Citadel and *Strategeion* loomed over the lower town. But architectonically, Dura was mostly an urban landscape of hidden interiors. This general characteristic of its domestic architecture—even the great D1 House of Lysias was tucked away in a corner of the city, its internal grandeur

only hinted at by an unusually elaborate columned street door—also largely applied to temple architecture. For even though their courts were accessed via axial doors, the interior vistas were only revealed on entry to sanctuaries, many also having blank external walls, and opening off quite narrow streets. However, some temples presented grander facades to plazas outside, i.e. Bêl, Azzanathkona, and probably X9.

Construction techniques in the civil town were both enabled and constrained by local geology and other resources (Allara 1988). The most abundantly available materials were stone, floodplain silts, reeds, and wood. Larger timbers, mostly used for roof beams, were probably imported by river from forests far up the Euphrates by, or as parts of, boats.

The limestone capping of the plateau was generally deemed too hard to work. The underlying gypsum strata are highly varied in composition. Some have a structure of large crystals which could be fairly finely carved into the door-jambs, lintels, and quoins characteristic of Durene domestic and public architecture. However, the material is prone to weathering.

The lower parts of walls were typically constructed from irregular blocks of rough gypsum, set in a white material today locally referred to as *djuss*. Used as both mortar and plaster, *djuss* was based primarily on gypsum but also contains clay, quartz, and organics (Dandrau 1997; 'Abdul Massih 2004). These lower wall stages, referred to in the French literature as *soubassements*, are sometimes just ground-level footings but typically rise 1–2m above floor level, sometimes varying in height in different parts of the same building according to a logic which may be difficult to discern. Sun-dried mud brick, made from the inexhaustible silts of the Euphrates floodplain, was set on top of the mortared-rubble lower walling, forming the main superstructure in houses and public buildings (Fig. 4.1). Mud bricks were normally set in mud or sometimes *djuss*-based mortar.

Completed walls were normally rendered with *djuss* plaster, disguising their composite construction and providing easily repairable weather-proofing. *Djuss* plaster is brilliant white when fresh, helping reflect heat and light, although on exteriors it rapidly takes on the prevailing pale tan tone of the local dust. More pretentious interiors, in temples and richer houses, might be provided with polychrome murals, painted onto set plaster, not chemically bonded as true fresco. The surface was also ideal for less formal embellishment with graffiti and dipinti.

Buildings were generally roofed with roundwood timbers roughly half a metre apart, overlain with layers of woven reed matting, weather-proofed with *djuss* plaster (Fig. 4.2). Floors and courtyard surfaces were typically rammed earth, although grander structures boasted plaster flooring.

Daylight was largely provided by large doorways opening onto courtyards, where many daily activities were doubtless normally conducted under open skies (Fig. 8.18). Windows,



Fig. 4.1. Structural details of the House of Lysias in block D1. The exceptionally large and opulent residence of Dura's ruling dynasty, its construction nevertheless exemplifies basic features of Durene architecture, namely mortared-rubble substructures usually with mud-brick superstructures, the whole then plastered. Larger slabs of worked gypsum were used for thresholds and door-frames.

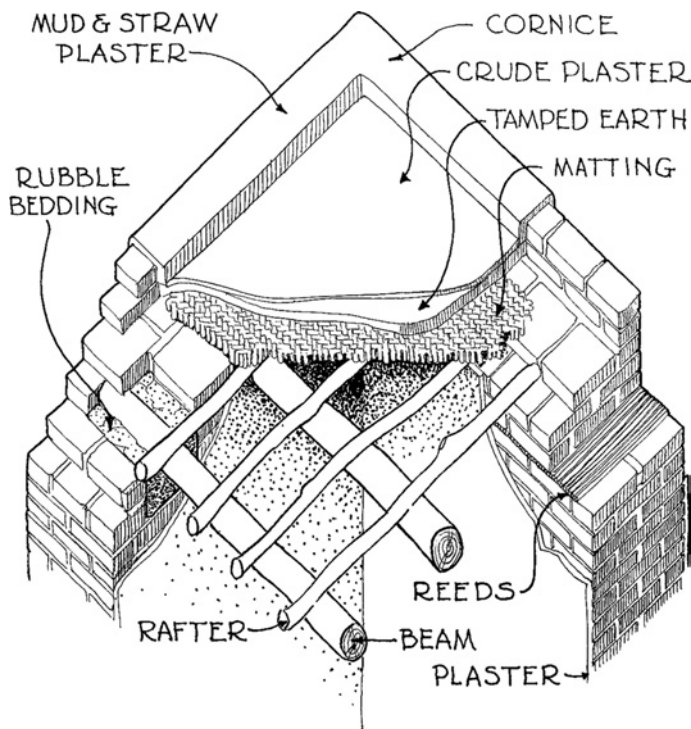


Fig. 4.2. Schematic diagram of Durene roof construction, from an archive drawing.

typically in outside walls, were few, tiny and high, to keep out summer heat, winter cold, and for security. Some were 'glazed' with sheets of crystalline gypsum.

Some deep wells are known in the city, though they are few. Durenese secured their water by other means. Run-off of brief but torrential winter rains from roofs was generally drained into large cisterns cut beneath house courts. While cisterns provided valuable water for domestic chores, it is likely that, if they did not drink the wine from local vineyards, people typically drank river water brought into the city in skins on donkey-back; no major cisterns indicating a public water supply have been identified (Geyer 1988, 293–4; Allara 1988, 335–8). Similarly, the city lacked major drains or sewers. Human waste was presumably collected for fertilizer or industrial purposes.

Such was the physical fabric of the city into which, in the second century AD, the Roman military intruded.

Roman-Era Architectural Adaptations and Innovations

Accommodating the Roman military contingents involved conversion of existing civilian housing stock and building of additional dwellings in the zone where the soldiers were concentrated, plus creation of new specialized military administrative and service structures.

The military architects and builders at Dura generally adopted local materials and techniques in the new official buildings raised there, including the *principia* and the Roman Palace. However, the large scale of these buildings, and the different kinds of spaces they incorporated, led to technical adaptations and innovations. For example, while intrusive in plan and layout, both *principia* and Roman Palace were mostly built using the traditional Durene gypsum rubble, mud brick, and *djuss* technique, although for additional strength (e.g. for very tall walls) masonry was carried all the way up, or built partially in mud brick laced with roundwood reinforcement. To create some vaulted spaces, false vaults were suspended from traditional Durene flat roof structures using local materials, i.e. timber and reed framing suspended on cords and faced with *djuss* plaster.

It is notable that, to a considerable extent, Roman military adaptation of part of the city into a base followed Durene practice of plain plastered exteriors, with emphasis on interior spaces, even where creating entirely new structures. This local heritage is seen most clearly in the large J1-A house, which follows local practice of an indirect entry route into the hidden inner court. The *principia*, normally a free-standing edifice surrounded by streets and visible from many parts of a Roman fort, was squeezed in between abutting buildings; its imposing scale was probably best appreciated only on entering its court. Even the widened stretch of 10th St was effectively an interior space, suddenly revealed on emerging from the narrower F St. Similarly, apart from its columned portals the Roman Palace had a plain exterior partly hidden by standing or perhaps part-ruinous buildings; its shady loggia was visible only from outside the walls, from the river valley. Perhaps the most extreme example was the amphitheatre which, on one side perched on the ruins of the F3 bath and on the other on a mass of timbering over 8th St, must have looked like a building-site from the outside; yet the interior was a careful exercise in graceful curves and visual symmetry. The contrast on entry was likely very striking, and intended to be so. On the other hand, where opportunity presented, the garrison made use of the natural theatre of the inner wadi, where the military exercise ground focused on the Temple of the Roman Archers.

The military also followed other local precedents in closing some road-lines and encroaching on others. G St was entirely blocked by the amphitheatre and at 10th St, as was the major D St by the camp wall at 8th St. The overbuilding of 10th St created the J1-J2 and J3-J4 'superblocks', which

themselves have civil precedents in D1-D2, and D3-D4. The amphitheatre reduced the major base axis of 8th St to just 3m wide; similar reductions of D St indicate that such reduced streets, narrow but allowing passage of wheeled and mounted traffic, were deemed adequate. The internal base street gates at the N end of D St and formed by the F/10th St arch also have civil parallels, in the street gates or at least formalized portals on G St between H2 and H4, and on I St at 5th St between D5 and D7.

Limited use was also made of imported Roman techniques and technologies, most obviously in the concrete walls, vaults, and domes of the new bath houses. Fired brick was critical to this, for hypocausts, floors, wall bonding courses, and arches. Baked tiles were also used in some civil contexts, e.g. the painted synagogue ceiling and paving of some temples. Ceramic piping tubes were also introduced, mainly for water mains but also used for drains and as vaulting tubes in the superstructure of the refurbished F3 bath building. Window glass was rare at Dura, found only in baths and a few houses specifically associated with the Roman military (Baird 2014, 103). While the E4 house possessed a set pebble floor, Dura's few true tessellated floors and decorative mosaics were confined to the Roman baths.

There was also cross-over in the other direction, with some limited use of Roman materials in civil contexts, e.g. fired brick used for vaulting to support the seating of the late *bouleuterion* in the Temple of Artemis, and for courtyard paving in the great D1 House of Lysias.

Roman architectural innovation at Dura, then, was on a modest scale, and unsurprisingly closely associated with the military. It is also noteworthy that, in line with stereotypes, key military-built structures such as the *principia*, Roman Palace, and concrete bath-house blocks were more strictly orthogonal in layout than virtually any structure in civil Dura; yet at the same time, much other Roman military construction looks much rougher and more slapdash than most civil domestic architecture, comprising very rough and basic adaptation of existing structures through creation of remarkably crude partition walls in mud brick, rubble in mud, etc. Around J7, a substantial area of military housing was built on open ground against the city wall, highly irregular in plan and flimsy in construction. Similar structures were built elsewhere across the base area, as far as the S end of the Citadel. These flimsy-looking constructions, too, were a characteristic innovation of Roman military 'architecture' at Dura.

PART II

The Base Portrayed

The following section depicts the archaeological remains of the Roman military presence in the city, area by area, block by block, and by individual structures and complexes. Examination of the remains on the ground, in conjunction with the archival records, confirms that during the final decades of the city's existence there was one large, more or less sharply defined military-controlled zone, which was actually even larger than has hitherto been appreciated. As will be explored in Part III, it also had a longer and more complex history than has been recognized. Additionally, although not formally part of the military base project, some consideration is given to installations outside the base area per se which exhibit evidence of Roman military presence (e.g. the Palmyrene Gate, and 'House of the Roman Scribes', L7) or at least construction (i.e. the C3 and M7 baths and their water supplies, and the 'khan' in L4).

EXTENT OF THE BASE

The Roman military eventually controlled a swathe of the city interior stretching continuously from the W defences S of the Temple of Palmyrene Gods across the plateau to the river cliffs below the Roman Palace, and SE to incorporate not only the Citadel but also the wadi floor in the shadow of its long wall. It now appears that the contiguous base area extended even beyond the Citadel, into the N part of block B2 close to the putative site of the city's River Gate, and probably to Lower Main St opposite the C3 bath which the military also apparently built.

The evidence is arranged through division into three zones: the plateau area, divided into two halves at G St, and the Citadel with adjacent *campus* zone.

The Plateau Zone West of G St

The W part of the plateau zone was defined by the city wall to W and N, and the approximate line of the camp wall projected to the F3 bath/amphitheatre in the S (Fig. 5.1).

THE TEMPLE OF BÊL ('TEMPLE OF THE PALMYRENE GODS' OR 'TEMPLE OF ZEUS') IN J9, AND ITS PLAZA

Discovery, Excavation, Publication, and Naming

One of the first structures explored at Dura in 1920, this temple (or perhaps better, sanctuary: Buchmann 2016, 116) was subsequently completely excavated but never fully published (Fig. 5.2 and Pl. XII). Preliminary accounts were written by the excavators (Cumont 1926, 29–41; *PR* 2, 11–12, 67–9 (Pillet), *PR* 4, 16–19 (Pillet); Rostovtzeff 1938, 68–75 and pl. VI) and it has been much discussed since (Downey 1988, 105–10 for overview and references; Dirven 1999, 326–49 for the Palmyrene evidence; Leriche et al. 2011, 28).

It remained a temple through the Roman period, apparently no part of it other than, presumably, the upper levels of city wall Tower 1 being used for secular military purposes. However, its continued existence in the farthest corner of the military base, and its attested use for worship by the Roman military community, demand discussion here.

Indeed one of the very first military discoveries was the Terentius wall painting on the N wall of the temple's room A, depicting a Roman military sacrifice by *cohors XX Palmyrenorum* before a triad of its national deities and the *Tychai* of Dura and Palmyra (Pl. I; Breasted 1922; Cumont 1923; Breasted 1924, 94–101, pl. XXI). Cumont consequently called the sanctuary the 'Temple of the Palmyrene Gods' (Cumont 1926, 29). In recent decades it has been more usually known as the 'Temple of (i.e. Palmyrene) Bêl', following Rostovtzeff (1938, 51), although in Parthian times it was probably dedicated to Zeus (Welles 1969, 63; Millar 1998, 482; Kaizer 2002, 122). No evidence indicates Palmyrene worship in the Parthian-era temple (Dirven 1999, 327–8). There is no consensus on the name for the sanctuary, so I follow MFSED's 'Temple of Bêl' (Leriche et al. 2011, 28; also now Kaizer 2016b, 37–41). Described as laying in 'J3/5'

by the Yale expedition, it actually lies N of these blocks in an area MFSED has labelled J9 (Leriche et al. 2011, 28–30).

During the third century when the temple lay within the Roman base area, it did become the focus of Palmyrene cults, likely 'related to Palmyrene soldiers or people associated with them' (Dirven 1999, 328). However, even in this period, Bêl is not mentioned in texts, nor depicted except in one painting in the subsidiary 'chapel' K (Fig. 5.2): other Palmyrene deities are more frequently attested (Dirven 1999, 327–8). M 'the clientele... was not confined to Palmyrenes and... Palmyrene deities were not the only gods who received a cult in this temple' (Dirven 1999, 328). An altar was dedicated 'to [his] national god Zeus Betylos' by a soldier of *legio IV Scythica*, dated to the time of Caracalla or Elagabalus (*PR* IV, 68–71, no. 168; *FR* 5.1, 25).

Summary Description and History

This sanctuary, founded in the Parthian era, incorporated Tower 1 at the NW corner of the city. Because of the angling of the corner of the defences into which it was constructed, it faces more exactly E than other sanctuaries aligned on the street grid. It follows the general 'Mesopotamian' layout common among pre-Roman Durene temples, of E-facing courtyard with *naos* at the back faced by an open-air altar, and secondary roofed spaces around the sides of the sanctuary. Not Dura's largest temple and in a peripheral location, it was still an imposing edifice with polychrome murals, including the small but historically important Terentius scene (above).

As noted above, there is considerable evidence for continuity of veneration at the Temple of Bêl during Roman times, if to a range of cults. If all Palmyrene activity in the temple was indeed post-165, then the scene featuring the eunuch Otes (Cumont 1926, 125–8; Dirven 1999, 76–7) indicates some civil use of the temple in the Roman period, although most attested activity was military. Dedications were made by both auxiliaries and legionaries attesting individual and official corporate dedications. These most likely record rituals taking place inside the modest temple court, although the portable altar in the Terentius painting may suggest the sacrifice it commemorated took place on the plaza outside, offering more space for the regimental assembly apparently depicted.

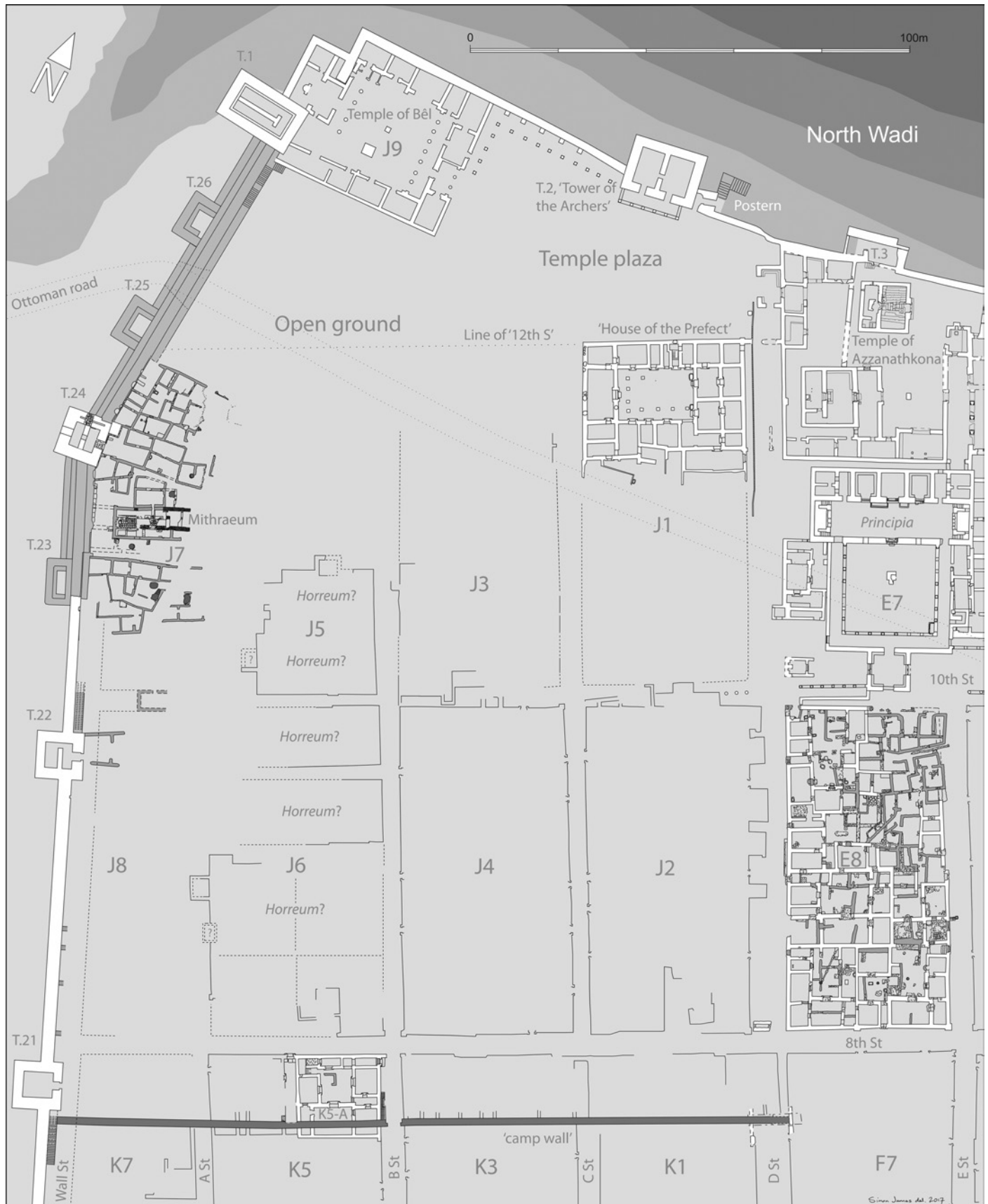


Fig. 5.1. General plan of the NW plateau zone of the base, from the city wall facing the open steppe in the W, to the line of E St. (Excavated areas not distinguished.)

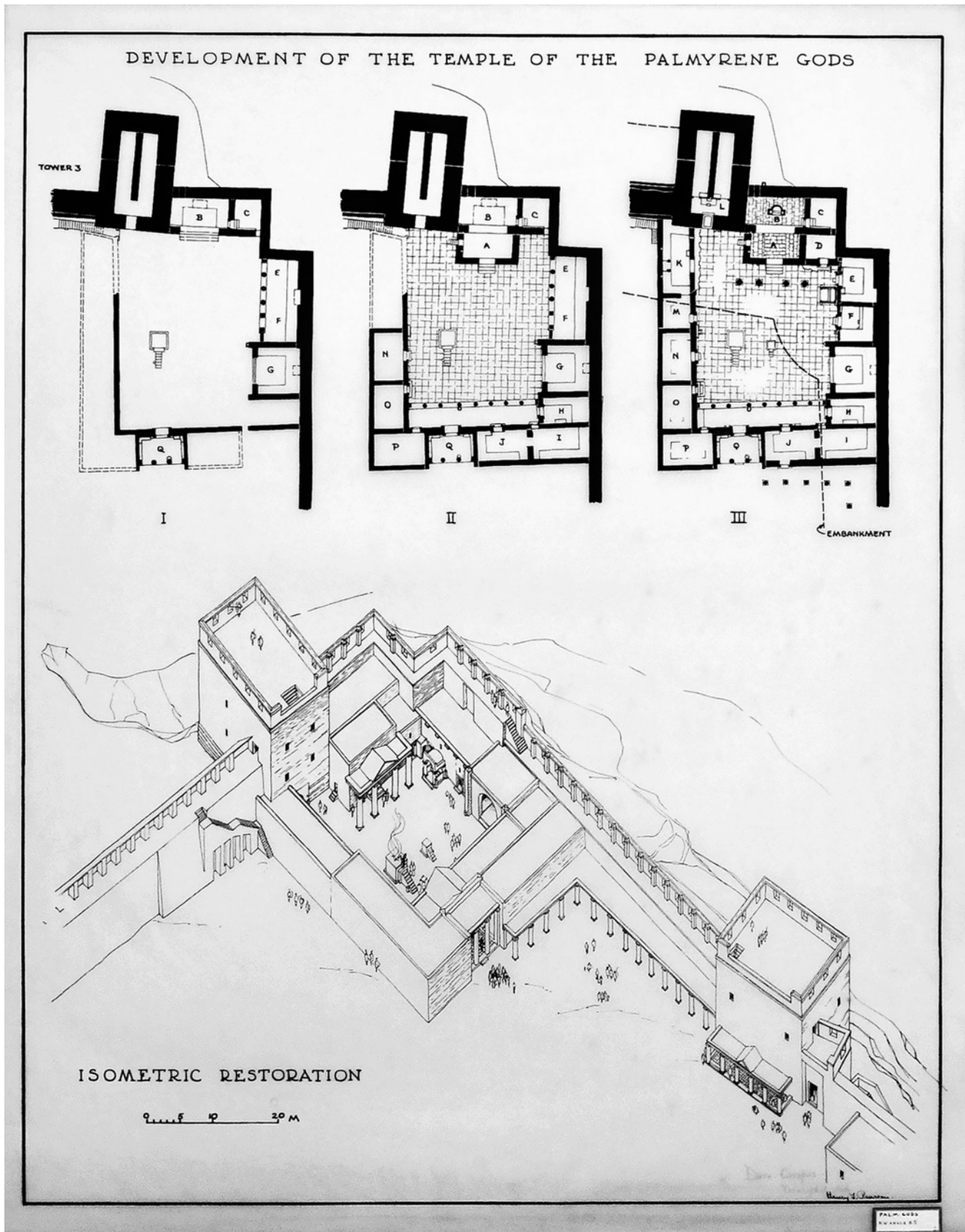


Fig. 5.2. An example of a plan from the Yale Dura archive: one of Pearson's drawings of the Temple of Bêl and Tower 2, the 'Tower of the Archers'.

Temple Plaza

In this peripheral quarter, the street grid was only ever established as far as the S side of the nominal line of 12th St, with the triangular area between this and the city wall along the N wadi remaining open ground (Fig. 5.1). Before Rome it may have been even larger, the N halves of blocks J1 and perhaps J3 still vacant plots. This constituted a substantial plaza in front of the temple's porticoed entrance, ending in the E at the rear wall of the Temple of Azzanthkona and the N terminus of D St, which it is suggested originally formed an aggrandized axis of approach to the sanctuary area (p. 289).

Whether or not it had been used for civil religious gatherings in Parthian times, during the life of the Roman military base this open ground constituted a potentially valuable area for military assemblies or training. It comprised an area of c.70m E–W, and N–S 20m expanding to c.45m, roughly 2,300m², almost the size of a city block and much larger still if further contiguous open ground on the S side of the temple is included. Indeed Rostovtzeff, apparently forgetting that an inscription indicated the base's parade/training ground actually lay in the shadow of the Citadel (p. 196), believed the Bêl plaza was the '*campus exercitatorius*' (Rostovtzeff 1938, 52). Tower 2, or the 'Tower of the Archers' after a Latin graffito (Cumont 1926, 8–10, 401–2, no. 46), overlooked the centre of the plaza, and its portico or roof might have served as a tribunal. A postern gate beside the tower gave direct access to the N wadi.

At the narrow E end of the plaza lay the entrance to the military administrative compound in the Temple of Azzanathkona flanked, at the junction of D St, by a plinth (imperial statue base?). D St led to the entrance to the 'House of the Prefect' and *principia*.

'HOUSE OF THE PREFECT', J1-A

Discovery, Excavation, Recording, and Publication

The 'House of the Prefect' (Fig. 5.3 and Pl. XIII; *PR* 5, 235; now J1-A: Baird 2014, 151–4) was a large courtyard residence, occupying more than the N third of an otherwise-unexcavated block. Lying between C and D Sts, its N wall line corresponding to the projected edge of '12th St', but in fact bounded an open plaza (above). On excavation, the walls nowhere survived much more than 0.5m high (Fig. 5.4). It was apparently completely revealed, although further dependent spaces may lie to the S (below, p. 69). The excavators thought 'the position of this house with its entrance just opposite the alley behind the praetorium [i.e. *principia*] must indicate that it was the residence of the military commander' (*PR* 5, 235); however, the label given to it by the excavators is a misnomer, as no military prefects are attested at Dura, only tribunes and *praepositi*. Rostovtzeff labelled it 'House of a Higher Officer' (1938, fig. 6, no. 25).

When resurveyed in 2008 and 2010 the rubble-constructed elements were generally in fair condition, although as elsewhere rain and wind acting on mud brick had served to obscure some details while revealing others not seen by the excavators. Mud-brick walling, notably most of the N wall, had largely dissolved and in some areas blown away entirely. An area of walling on the E side of court 1 was already missing on excavation (Fig. 5.4).

This building was 'cleared (sic)' towards the end of the fifth season, i.e. February–March 1932, while exploring the central area of the then-emergent military base, apparently by the crew directed by David Clark following clearance of the Temple of Azzanathkona and the *principia* (*PR* 5, xvii–xviii, 235; Baird 2014, 151–2). It was published only as a summary note (*PR* 5, 235–7), with a tiny plan (part of *PR* 5, pl. III: Fig. 1.14), and photo of the stone relief of a hand, deemed the most important artefact recovered (E1404: *PR* 5, 236; pl. XVIII, 3). This note was composed by Hopkins and Rowell from an 'account' provided by Clark (*PR* 5, xvii–xviii), now lost. Apart from versions of its plan, Yale holds no site records beyond brief references in Hopkins's day-book. No photographs survive, except incidentally in images of other structures (Fig. 5.4), and as a detail in air photos (e.g. Fig. 1.12). The (by Durene standards) poverty of the finds, along perhaps with the tiredness of the excavators after a gruelling campaign, explain the paucity of records.

No texts or paintings were recovered, as not much more than foundations remained, though 'in the court just outside rooms 18 and 19 two low plaster basins, one semi-circular, the other rectangular were placed', suggested to be for air cooling by evaporation (*PR* 5, 235–6). Still surviving in 2010, these features, resembling others in the military quarter, were probably horse troughs (Baird 2014, 116).

Apart from the relief fragment, few other portable artefacts were found, although these included a couple of ceramic lamps, relatively elaborate examples by Durene standards (Baird pers. comm.: *FR* 4.3, nos. 292 and 338). A basalt mill was found in room 16, which was therefore seen as a kitchen. The relief of the hand was discovered in the W end of room 21, and in Hopkins's opinion 'had probably been placed in the wall just opposite the street entrance, a symbol of divinity to avert evil spirits' (*PR* 5, 236, pl. XVIII.3). It does look to have been deliberately cut down from a larger composition.

The primary plan of the building is on part of a large-scale drawing by Henry Pearson of the central area of the Roman military base (Fig. 1.13). It accurately recorded the basins at the E end of court 1, and the incompleteness of the N portico, although hypothetical positions for three 'missing' piers were dotted in. Later Detweiler resurveyed the building, creating a preparatory drawing (Yale archive, unnumbered) for his great city map. Unfortunately, this introduced errors, omitting the plaster basins in court 1 and falsely showing the portico extending along the whole N side of the court (below, pp. 68–69).



Fig. 5.3. Plan of the ‘House of the Prefect’, J1-A, and adjacent structures in D St, based on archive plan E7 N1 and resurvey. Roofed area picked out in darker grey.

Phasing and Dating

Beyond the house’s evident existence during the life of the military base, there is little indication of dating. Its construction is probably to be linked with the partial military takeover of the Temple of Azzanathkona—with which it was physically connected by the D St gate structure (below, p. 70).

Some stratigraphic and spatial relations were noted within the building, and evidence of phases of alteration: ‘the west [sic: actually S] walls of rooms 14 and 15 rest against the wall of another building, clearly anterior to the house’ (i.e. room 22: *PR* 5, 236). There is also a wall on a different alignment S of room 17, the foundations of which ‘are laid on a much higher and consequently later level. Probably therefore when this new building was added and the alley blocked up, the

doorway to 17 was permanently closed’, being blocked with large stones when excavated (*PR* 5, 237). This angled wall was not visible in 2010, but its planned line is roughly on the alignment of the irregular room 22.

Location, Layout, Construction, and Functioning of the House

Hopkins believed they had excavated the entire residence, noting the external pilaster at the SW corner of room 11 marking the outer corner of a house in local style (*PR* 5, 235, incidentally matched by another at the NE corner of room 8). He envisaged the house as being built on the N side of an alley line running across block J1 between D St and

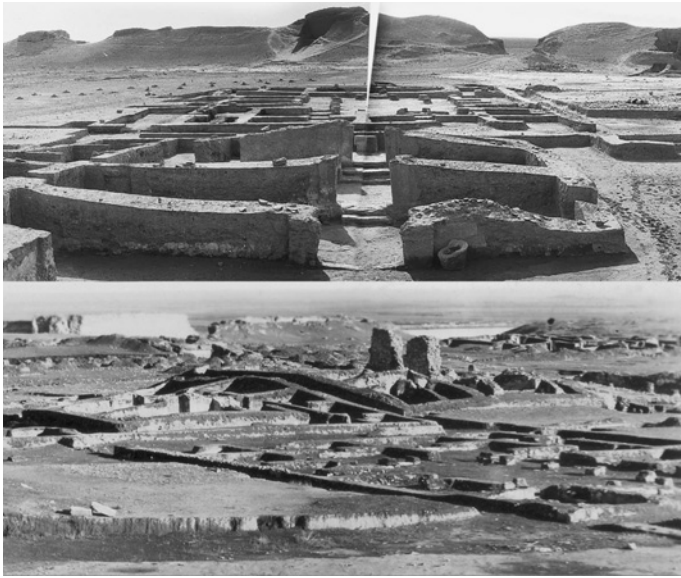


Fig. 5.4. The 'House of the Prefect', J1-A, appears in archival photographs only as a background detail. Top, seen from the E in shots of the Temple of Azzanathkona combined in photomosaic; and bottom, an incomplete view from the W.

C St, roughly on the axis of that between the *principia* and the Temple of Azzanathkona. Onto this, what he saw as the house's two external doors originally opened: the principal entrance, from D St via 'alley' 21 into room 12; with a corresponding unnumbered alley leading from C St to a secondary entrance into 17. Hopkins's E-side 'alley' 21 was subsequently formalized, enclosed, and provided with doors to comprise a controlled forecourt, perhaps even roofed over as an outer lobby. However, his interpretation of the room 17 door and its environs is questioned below. In any case, his alley line was not an open route right across the block: rooms 14 and 15 incorporated walls of a pre-existing building (room 22) straddling this axis (*PR* 5, 236). In 2010 I recorded another blocked door, between 16 and 22, unnoticed by the excavators, likely a pre-existing feature, perhaps a northern entrance into a house standing in the middle part of the block, sealed when J1-A was built.

Generally, the house was constructed in local style, i.e. mortared-rubble footings with mud-brick superstructures, and doorways provided with thresholds and jambs of cut gypsum blocks. Large irregular lumps of the tough local limestone were used, noticeably in the footing of the W wall backing the largest, focal space of the house (2). Limestone boulders were built into the wall exactly opposite the axial door, at a level above the stone footing otherwise built in mud brick. That this was a deliberate strengthening of the wall at a point anticipated to require special load-bearing is supported by the existence of a similar boulder in the wall behind the stairwell.

In the absence of most of the superstructure with consequent loss of fixtures, fittings, and decoration, or of any significant finds assemblage, we are otherwise reliant even more heavily than usual at Dura on details of layout and context to interpret the functions of the house and its constituent spaces. As we have seen, there are indications that it incorporated existing walls probably belonging to extant buildings occupying the middle of J1. However, most of the house looks to have been built as a single conception, perhaps making use of a vacant plot at the N end of a hitherto peripheral city block.

Like many, probably most houses at Dura, J1-A was essentially single storey. The portico was not carried across in front of the stairwell, as would be expected if the latter led up to a loggia running round the courtyard providing access to a suite of upstairs rooms. Rather, in Durene style, the stairs gave access to an open roof, although this could itself have comprised an important part of the living and working space of the house in fine weather.

The location of its main 'reception room' (2) on the W rather than the S side more usual in Durene houses, axially at the end of the colonnaded court, means that the house is literally orientated. It was designed around access from D St, leading to the military administrative complex of the base across the road. The house was entered via 21, outside the roughly orthogonal footprint of the building. This provided an area suitable for, e.g., marshalling of visitors and retinues. Door 21-12 into the house proper was immediately adjacent to the small 11, perhaps a porter's lodge-cum-guardroom. Corridor 12 turned right into 13, leading to a broad portal, apparently with doors, opening into the SE corner of court 1. This indirect entrance, with no line of sight from the street, was another typically Durene feature.

The principal focus of the plan is the largest room in the house (2). This had an especially imposing doorway and broad threshold, framed by an enlarged intercolumniation in the portico. It formed the centrepiece of a suite with room 18, originally connecting also with NW-corner room 3, and thence room 4 with its own court door. At some stage the main suite was split in two, doorway 2-3 being permanently blocked, making 3/4 a separate suite.

The court was partially surrounded by a portico on rectangular bases. No fallen rubble was found around them. The excavators suggested that, while stone upper parts may have been removed for reuse, timber posts may instead have stood on them (*PR* 5, 236). The portico ran from the SE entrance around the S and W sides of the court, and part-way along its N side too, to shelter and shade the door into room 4, but went no further. The lower courses of the attested piers were still visible in 2010, when heavy cleaning of the projected position of the easternmost of the possibly 'missing' pier-bases, abutting the basin by the door to room 19, revealed no trace that it had ever existed. Removal of the pier without damaging the basin is implausible. The N portico really was

partial, as the earliest plan showed; and this makes sense in relation to room layout, since it was carried no further than the frontage of the original main suite, 18/2/3/4. The roofed spaces E of 4 were small, clearly subordinate service areas (below).

The SW corner of the building comprised two connecting rooms, 16 linking court 1 with 17 and, originally, its door which Hopkins believed led via an alley to C St. That a heavy basalt mill was found in room 16 is interesting since, while we cannot be certain that it was found where it had originally been used, rooms 16 and 17 together would make sense as a service area, e.g. for food preparation, close to Room 2, but also with external access for deliveries without having to carry them through court 1.

The eastern end of the house incorporates two further suites of rooms. By the entrance to the court, the axis of the S portico led into 20, with private inner room 10. On the N side of this unit lay 19 and 9, a similar pairing, supplemented by 7 on the N side of 19. Immediately N of the entry to each of these suites was a plaster trough.

Except for room 8 (below) the remainder of the plan comprises single rooms giving onto the courtyard. On the N side, there was the stairwell with the small flanking rooms 5 and 6, unprotected by the portico. The stairwell created a narrow unnumbered room beneath its W side. Room 6 had access through its W wall to a small, low space under the half-landing of the stairwell.

On the S side, fronted by the portico, lay the squarish 14, and narrower 15 to its W, both slightly irregular in shape due to the pre-existing wall lines of 22 to the S. The door to 14 looks across the courtyard between two portico piers. However, to allow a clear view from—and maximize light into—15, its doorway was placed eccentrically, while the adjacent pier was placed c.300mm W of the position required by the otherwise regular 2.5m intercolumniation.

Finally, at the NE corner of the house lay room 8. It was heavily eroded in 2010, but the original plans show no access to or from the house interior; it opened onto D St via an unelaborated doorway next to where the N wall line of the house was projected into the carriageway as a masonry pier. A counterpart projected from the outer wall of the Temple of Azzanathkona opposite. The combination of these features suggests a supervised control point, described below, apparently constructed at the same time as the house.

There was another important modification to the plan during the life of the residence. The door through the S wall of 17 was, in Hopkins's view, a secondary entrance into the house from C St via a blind alley mirroring 21 onto D St. This door was subsequently sealed, according to Hopkins when the angled wall identified S of 17 was built, blocking the alley (*PR* 5, 237). Subsequently Detweiler in his survey preparation drawing showed an alternative access door to C St cut directly through the W wall of 17, but this was not attested in *PR* 5 and on close inspection in 2010 no

evidence of it was detected. The house, then, seems to have had only one entrance in its later phase, privacy or security apparently trumping convenience here, as it did in tightening of access arrangements in the Roman Palace (p. 175).

However, there is a different possible interpretation of the room 17 door, which may never have led directly to C St at all. The line of Hopkins's W 'alley' was also blocked by a full-thickness wall on the block's street frontage. Undated, this may have been a later addition. However, even though room 17's S door was eventually blocked, the positioning of Hopkins's angled wall, actually undated, implies that it was built not to block the doorway, but to lead traffic to and from it, framing an access route from the J1-A courtyard complex to the central part of the block. Have we got the entirety of the house plan after all? The observed layout seems to imply that before the room 17 door was blocked, the residence may have had additional dependent spaces to the S. If 16/17 comprised a kitchen and service area, perhaps this additional zone comprised more of the same, i.e. storage, and/or accommodation for servants, with a secondary street exit elsewhere on the block's perimeter. Fig. 1.13 shows a third plaster trough in this area, suggesting a second courtyard. These observations imply a plan more complex and rambling than hitherto thought, incorporating bits of other, pre-existing houses—another Durene-style feature of the residence.

Discussion and Interpretation

Architecturally, the large J1-A residence was seen by the excavators as, in construction technique and layout, a variation on Durene houses, 'larger and more sumptuous than most', with its large central court porticoed on three sides; like other major houses in the town, it lacked plaster benches in its main reception room (*PR* 5, 235), implying wooden furniture. The basic materials, architectural techniques, and features employed in the building are Durene, while a number of other features of its layout are also consistent with local practice, such as the indirect entrance obscuring the court from the street, the roof-stair, and the large axial reception room with private inner chamber accessible only from within. However, in other important ways the house diverges strongly from local traditions, marking it as intrusive and alien in nature.

Notably, Durene houses tend to be roughly square in plan, with open courtyards and the focal room on the S side, like the excavated houses in E4 and K5. The rectangular footprint, literal orientation, and extensive portico make the J1-A house anomalous. It does, however, clearly relate to Roman military architecture, in terms of its size, general layout, and not least location relative to other military buildings.

It was largely on the basis of its location in relation to the *principia* that the excavators identified this building as the residence of a senior officer or supposed garrison commander (*PR* 5, 235). Its size and layout also fit with this identification.

It broadly resembles in shape and size some courtyard residences of unit commanders in auxiliary forts, and of tribunes and 1st-cohort centurions at legionary bases like Inchtuthil (von Petrikovits 1975, 62–7, Bilder 11 and 12).

Gate at D St and '12th St'

The N wall footing of the J1-A house was extended beyond the NE corner of the building out into the line of D St, forming a pier (Fig. 5.3). Not mentioned in *PR* 5, this structure is partly visible in photos (Fig. 5.4), and appears in archive plan E7 N1 which also shows a counterpart projecting from the precinct wall of the Temple of Azzanathkona (Fig. 1.13). The area was cleaned and examined in 2010. While eroded, the W pier seems to be complete. However, the E part of the structure was less clear. While it was evident that a corresponding masonry structure projected from the Temple of Azzanathkona, their stratigraphic relation could not be determined without more extensive excavation. However, the extent of this E projection appears to have been considerably greater than that indicated in Fig. 1.13, which also apparently indicates a continuous threshold between the piers, no trace of which was observed in 2010. Rather, the E projection terminated in the rounded end of a rubble-built masonry footing reaching halfway across the road, at least in its final form (Fig. 5.3). Between this and the W pier was a gap of undisturbed road surface about 1.8m (c.6 Roman feet) wide. It seems, then, that at this point D St street was, at least at one stage, walled across except for a portal, narrow enough for double doors but barely enough for wheeled vehicles, adjacent to the isolated room J1-A8.

This narrowing of the street, right beside the only entrance to room J1-A8, appears to form a control point, probably gated, with a guard room, representing close supervision of movement between D St and the Temple of Bêl plaza area. The arrangement of the portal is consistent with a general narrowing of the line of D Street N of 10th Street, pushing all traffic towards the W side of the pre-Roman carriageway, also indicated by the foundation in the road adjacent to the SW corner of the precinct of the Temple of Azzanathkona (below), and, further S, by E7-38.

Structure in D St Opposite Entrance to J1-A House

Not recorded on any archive plan or mentioned in any surviving text, but visible as excavated on 1936 air photo Z5 (Fig. 1.12) and discernible in Fig. 5.4, is a foundation in D St just N of the line of the alley between the *principia* and the Temple of Azzanathkona, running parallel with the temple precinct wall (Fig. 5.3). This was examined in 2010. A long narrow N–S foundation running parallel to the precinct wall and about 2.25m from it, this was 5.4m long, c.0.5m wide, and survived c.100–200mm above the modern surface.

The N end was a well-finished, rounded foundation of mortared rubble. The rest seemed to be a rough foundation of unmortared rubble for a mud-brick superstructure, traces of which remained, especially on the downwind E side. The S end appeared roughly T-shaped with a small pier on the W (roadway) side, matching another N of the door to J1-A21 opposite. On the E side of the foundation was a crumbling gypsum block, probably *in situ*, with another, smaller to its N. The gap may have been for a (?door) post, but preservation was poor.

This structure was probably a lean-to shelter built against the temple precinct wall. Its position is consistent with the general narrowing of the D St carriageway mentioned above. Its purpose is obscure. Its S pier or pilaster, and the apparently corresponding feature across the street on the wall of the J1-A house, appear too flimsy to take any kind of gate, but seem to mark some line across the street at this point. The structure's location, right next to the axis of communication between the J1-A house and the entrance to the alley leading to the rear entrance to the *principia*, may hint at its purpose, which was perhaps the same as the somewhat analogous room E7-39S by the SW *principia* entrance. It may have provided shelter for escorts awaiting the appearance of the officer presumed to reside in the J1-A house, on his way to official business in the *principia*.

D St Water Main

'Round water pipes', from a supply source apparently on the line of the N city wall, were found on D St, running past the J1-A house (*PR* 5, 237), and shown on plan E7 N1 (Figs 1.13, 5.3 and 5.6). This main likely ran from the water-raising machinery inferred around Tower 5, which also supplied a main on G St (p. 263).

On D St, the precise line of this pipe is informative: its course respected the forehall of the Temple of Azzanathkona military compound, and deviated slightly at the ?statue plinth in the street outside it. In the archive plan its relationship to the gate pier projecting from the J1-A house is unclear. However, the overall line of the pipe running S past the house suggests that the pier probably already existed when the pipe was laid.

THE TEMPLE OF ARTEMIS AZZANATHKONA AND ITS MILITARY COMPOUND, E7

Discovery, Excavation, and Publication

The sanctuary known as the Temple of Artemis Azzanathkona became engulfed in the Roman military base area, and was itself partially taken over by the garrison (Figs 5.5 to 5.9). It lies mostly in the N half of block E7, and was an unexpected discovery when, during the fifth season (1931–2),

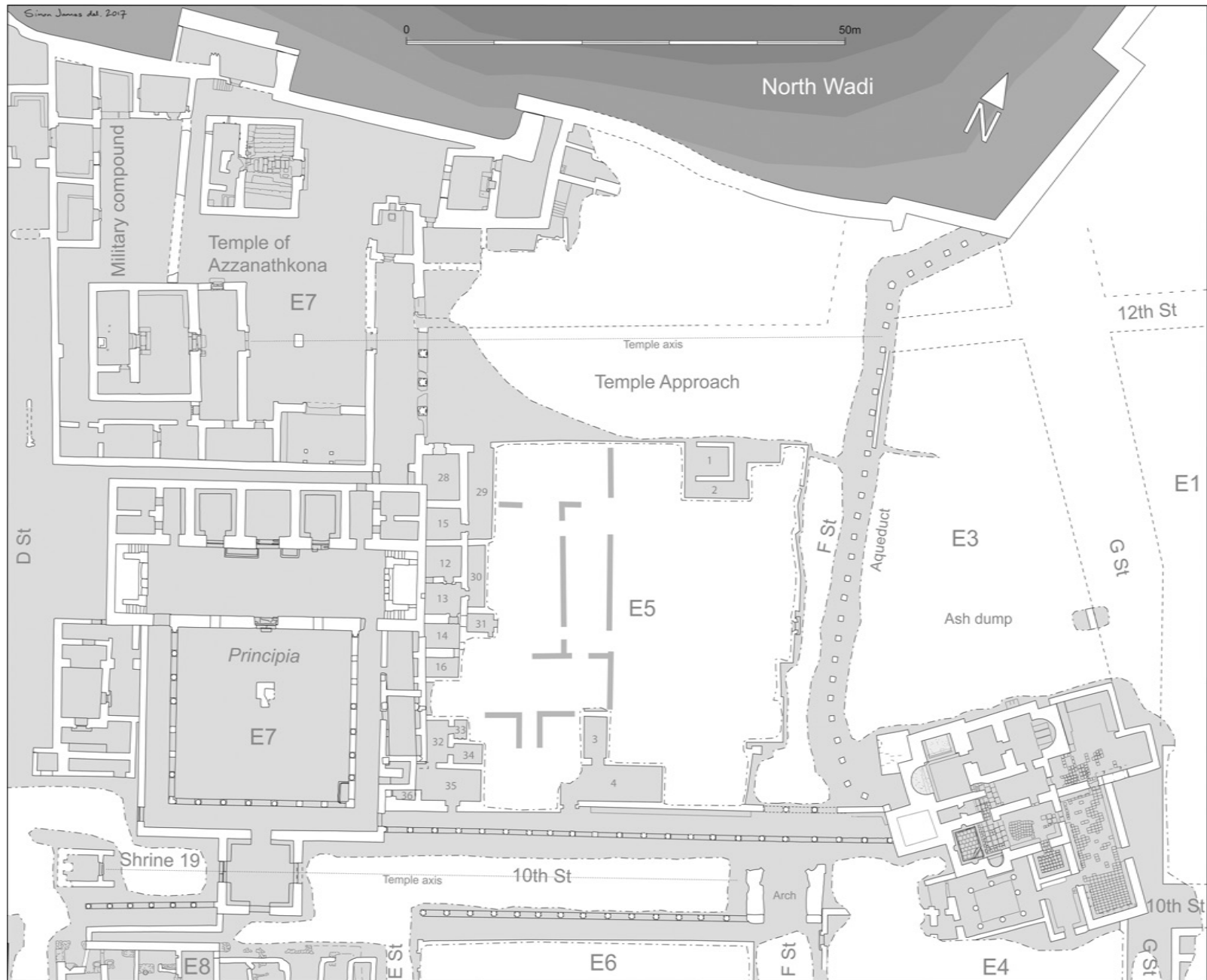


Fig. 5.5. General plan of the heart of the military base between D and G Sts, comprising in E7 the *principia* (with the partially taken-over Temple of Azzanathkona behind), the widened stretch of 10th St linking it with F St, the main approach from the centre of the city, and the E3/E4 bathing facility. Unexcavated areas are shown in white, important magnetic anomalies in block E5 outlined in grey.

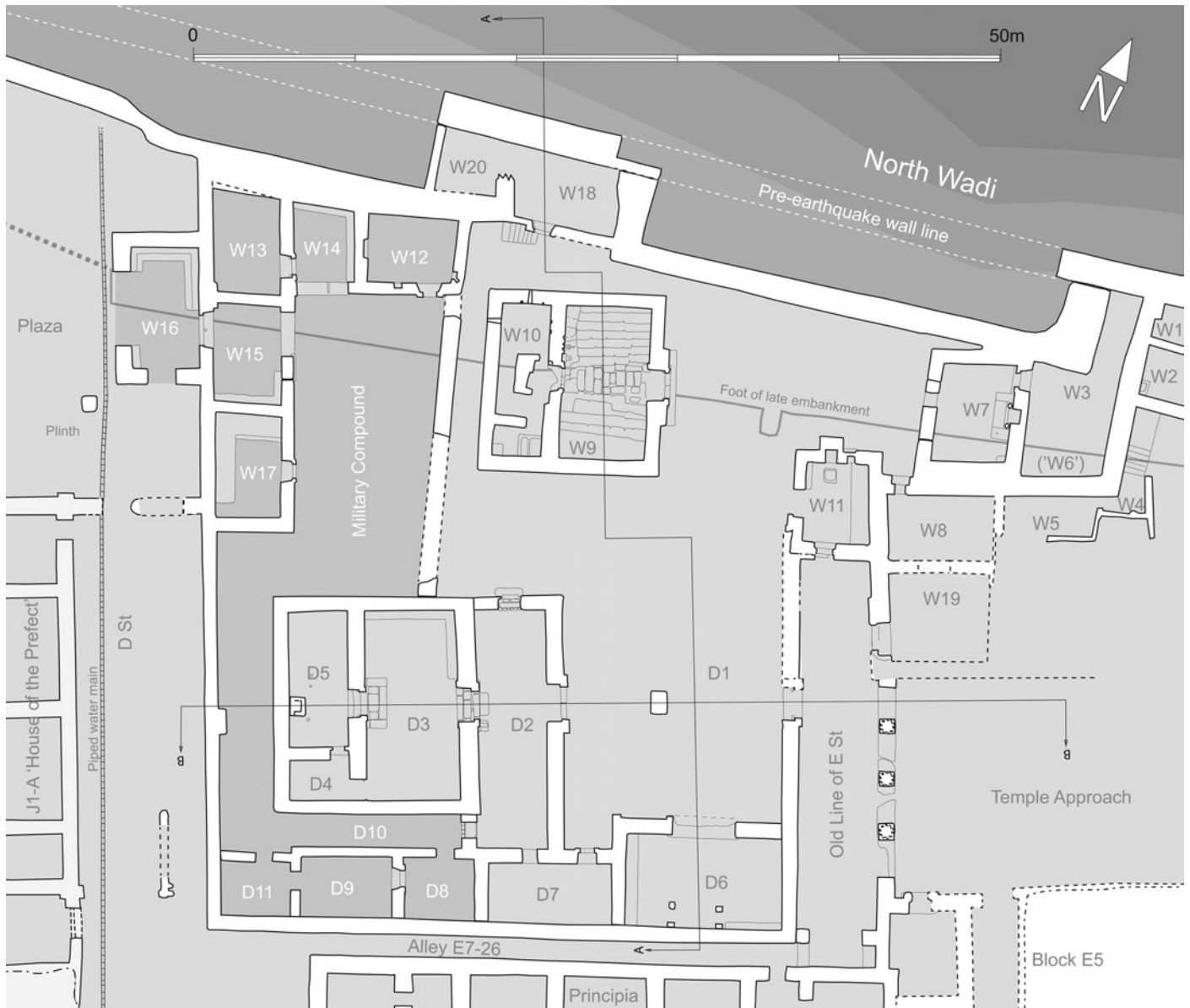


Fig. 5.6. Plan of the Temple of Artemis Azzanathkona and environs, based on archival plans and new survey.

the area was excavated along with the *principia* which neighbours it to the S. The work was conducted by David Clark, from whose 'accounts' (now lost) it was published by Hopkins (*PR* 5, xvii–xviii, 131–200), with more of the dipinti and graffiti presented by Brown, Rostovtzeff, and Welles (*PR* 6, 482–99).

Apart from some unpublished photos and drawings, there is little on the excavation in the archive. Clark's numbering system for the building preserved in plans was idiosyncratic, comprising two parallel number series, distinguished by the letters 'W' for rooms along the wall line (including rooms beyond the line of E St which more logically should have received E5 numbers), and 'D'

(meaning unclear) for spaces in the interior of the block. This probably arose because Clark's team dug both zones simultaneously (the order of the W sequence reflecting that he worked westwards from a point E of the temple: Hopkins 1979, 99), and he had started assigning room numbers for recording in both areas before he realized that these were all parts of one entity.

The main published plan, with the room numbering, was the tiny drawing forming part of *PR* 5, pl. III, itself a reduced tracing of the large, much more detailed primary inked plan of the central base zone drawn by Pearson soon after excavation (plan E7 N1; Fig. 1.13). A later plan, specifically of the temple (E7 N11) was created by Detweiler in 1937 in

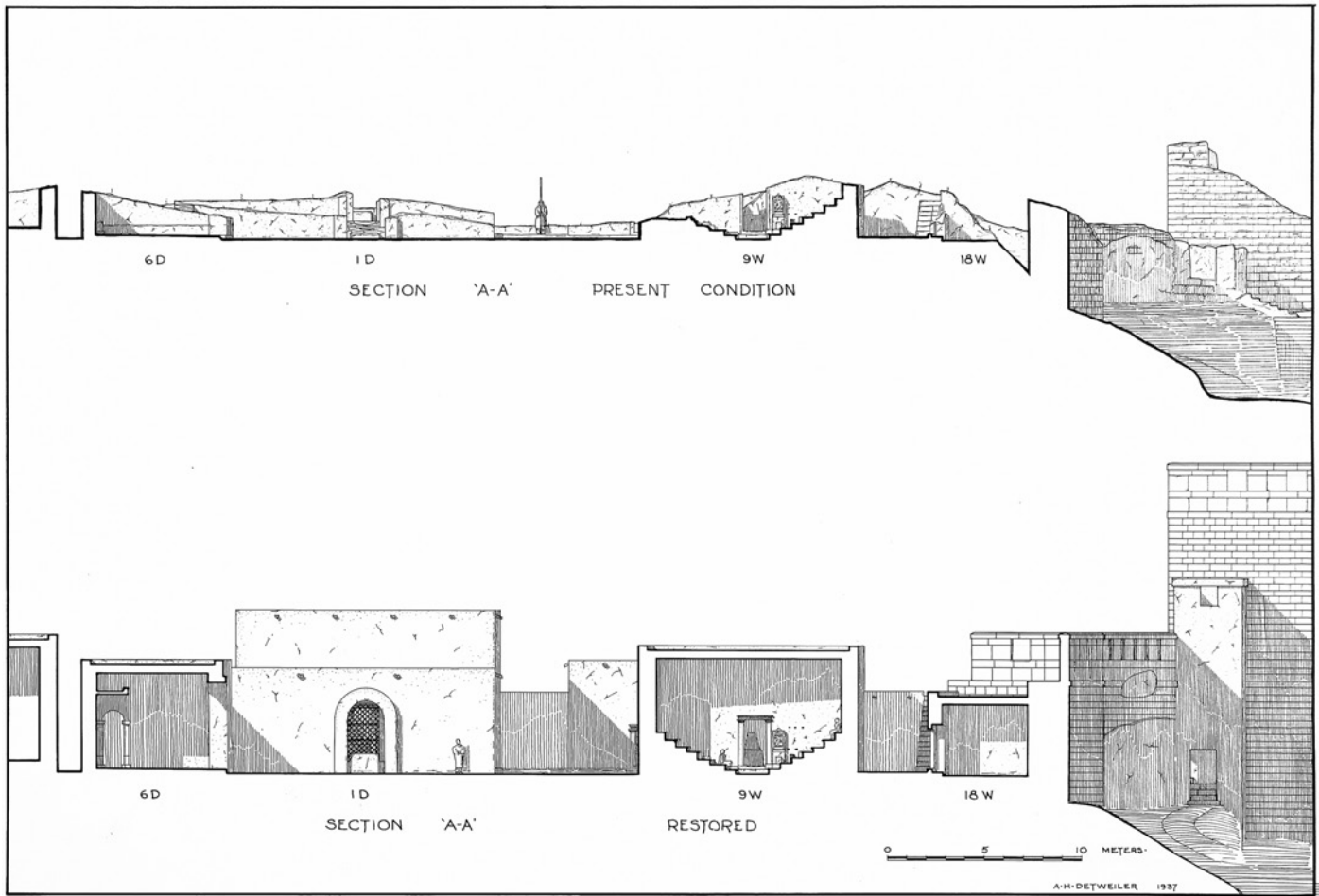


Fig. 5.7. N-S section/elevation of the Temple of Artemis Azzanathkona by Detweiler.

conjunction with elevations (Figs 5.7 and 5.8), but was not published. The plans differ significantly. Pearson's drawing is somewhat schematic, much of it comprising ruled lines to quickly produce an overall plot of a large area. He was also inclined to conjecture, e.g. inventing spurious colonnades on 10th St W of the *principia* mirroring those actually existing to the E. For the Temple of Azzanathkona, Pearson restored five columns facing the plaza known as the temple approach (below), where Detweiler more plausibly drew three. Detweiler's drawing is more nuanced, spatially more accurate, but less comprehensive than Pearson's, omitting conjoining rooms in the NE. Pearson's shows more detail of niches, blocked doorways, and 'coolers'. The new plan (Fig. 5.6) draws on both, but for the less well preserved NE area, without reexcavation must be regarded as provisional.

The temple was subsequently discussed by Downey (1988, 99–101, figs 44 and 45). More recently there has been a study of pre-Roman usage of the *salle aux gradins* W9–10 (Arnaud 1997), and discussion of military use of the sanctuary (Dirven 1999, 349).

Extensive photography of the remains was undertaken between 2007 and 2010, involving some targeted cleaning, and Total Station points recorded. Extensive consolidation work was carried out in the Temple by MFSED in 2009, especially in *naos* D2–D5. Much of the monument remained in fair condition in 2010, except the mud-brick parts, especially the formerly high walls of rooms W12–W14 which had almost entirely washed away.

Temple Layout

Like others in the city, the Temple of Azzanathkona was a Mesopotamian-style shrine facing E, comprising rooms arranged around a courtyard within which were, in this case, two foci: what is taken to be the main shrine, axial to the main entrance, comprising D2, D3, D4 and D5, and the *salle aux gradins* block (W9 with W10) to its N. The squarish sanctuary occupied the N part of the nominal space of block E7, and extending N right up to the city wall on the edge of the N wadi. It also spilled somewhat across the lines of both

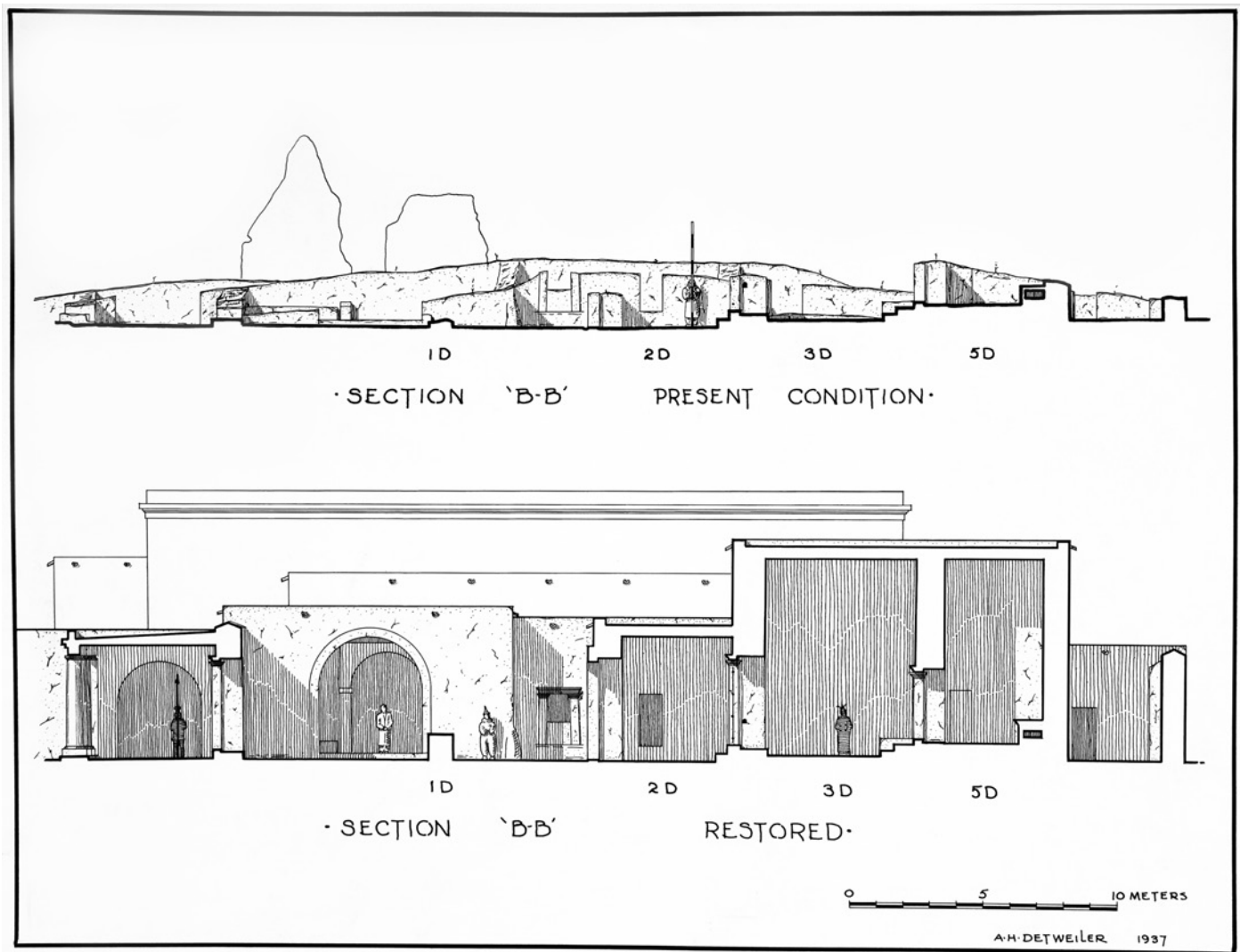


Fig. 5.8. E-W section/elevation of the Temple of Artemis Azzanathkona by Detweiler.



Fig. 5.9. Photomosaic of the temple of Azzanathkona from the E, with naos D3 at centre. The rooms of the military compound are beyond it, on its left and right sides. The J1 house is beyond the temple, with the Temple of Bêl in the right background.

D St to the W (in the form of projecting antechamber W16; Fig. 5.6) and, via a series of rooms along the city wall, across the line of E St. The latter was at this point roofed over, and turned into a portico. This faced onto a small plaza c.13m wide, running from F St across the N part of the nominal area of the reduced block E5, which the excavators labelled 'Temple Approach' (Fig. 5.5).

Overall layout is fairly orthogonal except close to the city walls. The main approach to the temple from the town was, Hopkins believed, originally along E St, until that was blocked by construction of the *principia*, at which time (he thought) a new approach was created from F St (PR 5, 136). Features on the line of E St certainly appear to suggest that this may once have been an important avenue of approach to the temple (Fig. 5.5). Notably, the N terminus of E St, just N of the main entrance to the sanctuary, comprises a small shrine/secondary entrance, W11, axial to the street line. More strikingly, the line of E St, southwards from the SW corner of the temple precinct, was flanked all the way to 10th St by broad foundations carrying large piers, later incorporated into the Roman *principia* as standing structures. E St was, then, elaborated S of the temple, just as it was before its E facade where there was a colonnade on the other side of the street, providing an imposing approach from the E. This arrangement roughly parallels the situation on the E frontage of the Temple of Artemis Nanaia which occupies the whole of block H4, where G St was apparently elaborated with a gate (PR 3, 4). However, the piers on E St probably did not primarily constitute an embellished approach to the Temple of Azzanathkona but, it will be argued, pertained to another temple which, before the *principia*, stood in the S part of E7 (pp. 88–90).

Although the third-century Roman military closure of E St certainly required access from the centre of town henceforth to be made up F St and then W along the temple approach, the temple was probably always accessible via this route. The S half of E5 appears to have been fully built up, and there are also indications of a substantial unexcavated building N of the temple approach backing onto the city wall (E7-W1, 2, 4, 5, 19): an imposing doorway (into W19) was identified near the N end of E St, associated with a wall line respecting the axis of the main temple entrance, running all the way to the altar or statue base at the back of the main *naos*. This wall marked the N side, not simply of a lane or street linking temple with F St, but an open across the nominal area of block E5 that it was more a plaza: the so-called 'Temple Approach'. As mentioned, the W end of this open area was aggrandized with a colonnade, although the temple's entrance axis was framed by its N-most intercolumniation. The evidently important temple axis-line, when projected, ran through an enlarged pier-gap in the aqueduct beyond F St framing the route of 12th St to the E (Fig. 5.5).

To summarize, in reality F St, rather than E St, may always have been the principal axis of approach to this temple. F St

linked the E end of the Temple Approach directly with the centre of the agora district, paralleling the arrangement of D St, plaza, and Temple of Bêl to the W.

Pre-Roman Cult and Chronology

An inscription of 161 attests the dedication of the temple to 'Artemis the goddess called Azzanathkona' (PR 5, no. 453), the classical goddess identified with a Semitic deity unknown elsewhere (Downey 1988, 99). Her name suggests she was tutelary goddess of Anath, a Euphrates island settlement downstream of Dura (Downey 1977, 185–7). She was presumably imported to the city with migrants and, like other relatively late-coming 'foreign' deities, was installed on the urban periphery. It is possible that Azzanathkona had a male consort also worshipped in the temple (PR 5, 177).

The earliest inscription comes from W9 with its tiered seating (*salle aux gradins*). It shows the temple existed by AD 13, while another of AD 34 names the goddess (Arnaud 1997). The sanctuary developed during the first and second centuries AD (PR 5, 131), the court becoming lined with rooms. The inscription of Heliodorus over the door of W12 shows this was built in AD 153, details of layout and structure suggesting that W14 was also built at that time, against the pre-existing W13 (PR 5, 134).

Hopkins noted the limited stratigraphic relations visible within the complex, exacerbated by loss of some walls already at excavation, making phasing difficult; he argued convincingly that the N part of the Temple had seen extensive losses due to cliff collapse, requiring patchy rebuilding, with likely extensive knock-on effects elsewhere in the court (PR 5, 131–2). The dedication of 161 mentioned above was found outside the doorway of D8 and indicated the room was completed exactly a year after the attested 160 earthquake (PR 5, no. 453), providing context for the observed damage and reconstruction.

The Military Compound at the Back of the Temple of Azzanathkona

A porch structure, W16, was built projecting onto D St, in front of a western entrance through the sanctuary wall at the back of room W15. In the street by the corner of this structure a plinth, probably a statue base, was inserted (Fig. 5.6). Hopkins was coy on when he thought this W access to the court was created (PR 5, 136, 168). A simple rear door to a temple compound in an analogous position is seen in the Temple of Zeus Theos in block B3, so there may have been a secondary entrance to the Temple of Azzanathkona since Parthian times. However, at least the elaboration of this entrance with bench-lined porch W16 is plausibly to be linked with the physical partitioning of the site into two non-communicating compounds. It is clear that, at some

stage, the entire rear area of the temple was divided off by walling up the door between D10 and D2, and constructing a mud-brick wall, presumably at least head height, across the court between the corner of W12 and the side of D3. This division is not described in *PR* 5, only being recognized later. Brown was aware of it (Fink et al. 1940, 11–12 n. 2), while the original course of the wall across the court, and the attested breaks in it, were recorded on Detweiler's unpublished plan. He also showed it on his great city map.

The S half of the partition wall was apparently already absent at the time of excavation. Perhaps it was demolished as simply in the way during strengthening of the city defences around 254. In 2007 the N part was still *in situ* behind W10, albeit weathered to a low mound, within which cleaning revealed coursed grey mud brick. In 2010 the D10-D2 door still showed evidence of its blocking.

Apart from the blocking walls and probably construction of W16, the new W compound seems simply to have re-used pre-existing temple rooms. Secure with a single controlled entrance, it comprised an irregular open court with nine roofed spaces. The court was accessed from D St via antechamber W16 and W15. On arrival, to the visitor's left was the wide-open S side of Room W14 with benches along its E and N walls, and giving access to the corner room, W13. Beyond these in the same S-facing row was room W12. On the S side of the W15 entry was the single E-facing room W17. In this area the small court was bounded to the E by the mud-brick partition wall, while to the S the blank N wall of the main shrine building D3-D5 all but hid the passage to the rest of the compound. This extended to the S, to a narrower passageway, D10, running along the front of the final N-facing suite of rooms, D11, D9, and D8.

As the blocking of the D2-D10 door used fired Roman bricks, and rooms in the enclosure have produced abundant military texts on their walls, it is reasonable to ascribe the changes to a partial requisition of the temple precinct by the Roman military. The graffiti and dipinti on the walls of those rooms had been protected by encasement in the earth rampart, especially W14. Fig. 5.10 shows just the most prominent of the many graffiti and dipinti found in W14, which were 'literally covered with heterogeneous scrawls, inscriptions scratched or written in ink, drawings of various sorts, and smudges', with texts 'in Greek...Latin, and in a magic alphabet...Many names of Roman soldiers appear' along with 'texts and figures which bear on the superstitious practices of this time', including 'magic signs and symbols' (*PR* 6, 482), notably acrostic ROTAS/SATOR squares which may or may not have had Christian meaning (p. 311). The adjacent W13 also produced the famous cache of military papyri.

Chronology and Evolving Purpose of the Compound

When the military presence in the Temple was discovered, Hopkins, Rowell, and Rostovtzeff speculated that the

principia served as headquarters for the legionaries, with the Temple of Azzanathkona as HQ for the auxiliaries (*PR* 5, 229, 312). This simple spatial division remains possible, as the *principia* has produced texts relating to legionaries but none demonstrably relating to auxiliaries, while the temple compound produced part of an auxiliary unit archive. However, a legionary graffito was also found in the Temple of Azzanathkona ('*legio Antonini*' in room 14: *PR* 5, no. 489).

At least during the life of the adjacent *principia* building after 211, the temple compound was perhaps an administrative annex, and may be seen as constituting part of a single, extended HQ complex straddling much of E7, serving the needs of the multiple Dura-based contingents. Many functions—notably unit record keeping of men, mounts, monies, and equipment—will have been duplicated for each unit or contingent present.

Although the Temple compound clearly formed part of the Caracallan and later base facilities, a crucial piece of evidence demonstrates that the military presence in the sanctuary was established significantly earlier. Inscription 561 on the wall of room W12, referring to *cohors II Ulpia equitata*, contains imperial titles mentioning Severus alongside an erasure which must have attested Clodius Albinus as Caesar, dating the text to AD 194 (*PR* 5, 226–9, pl. XXIX.2; Fig. 5.11). The temple compound is, then, demonstrably a relic of the pre-210 base arrangements. Already present under Commodus, the regular auxiliaries at Dura needed administrative facilities. It may be that the temple compound served as the first Roman HQ, although it is also possible that another similar early compound also existed on the site of the later *principia* (p. 90). However, there are some clues to the organization and operation of the Azzanathkona compound.

Hopkins argued that W14, with its benches, open front providing good lighting, and plentiful dipinti, was used by military scribes (*PR* 5, 135). This makes sense in combination with W13, which opened off it, as an archive room; the surviving military papyri were, then, plausibly buried where they had always resided. Alternatively, perhaps the open front of W14 allowed it to serve as the *aedes* of the standards. The multiple scenes of sacrifice and invocations on its walls would fit with this (Fig. 5.10). It is also noteworthy that the compound's porch, W16, had an arrangement of benches and doors resembling those of the forehall to the *principia*. It opened onto the top of D St, controlled by an apparent gate or checkpoint with guardroom, and also formed the E focus of the tapering plaza E of the Temple of Bēl. With its adjacent ?statue plinth, it might be deemed a second focus of the tapering plaza.

The Temple in the Roman Era

It is very significant that the Roman military authorities actually took over only part of the temple, and that their

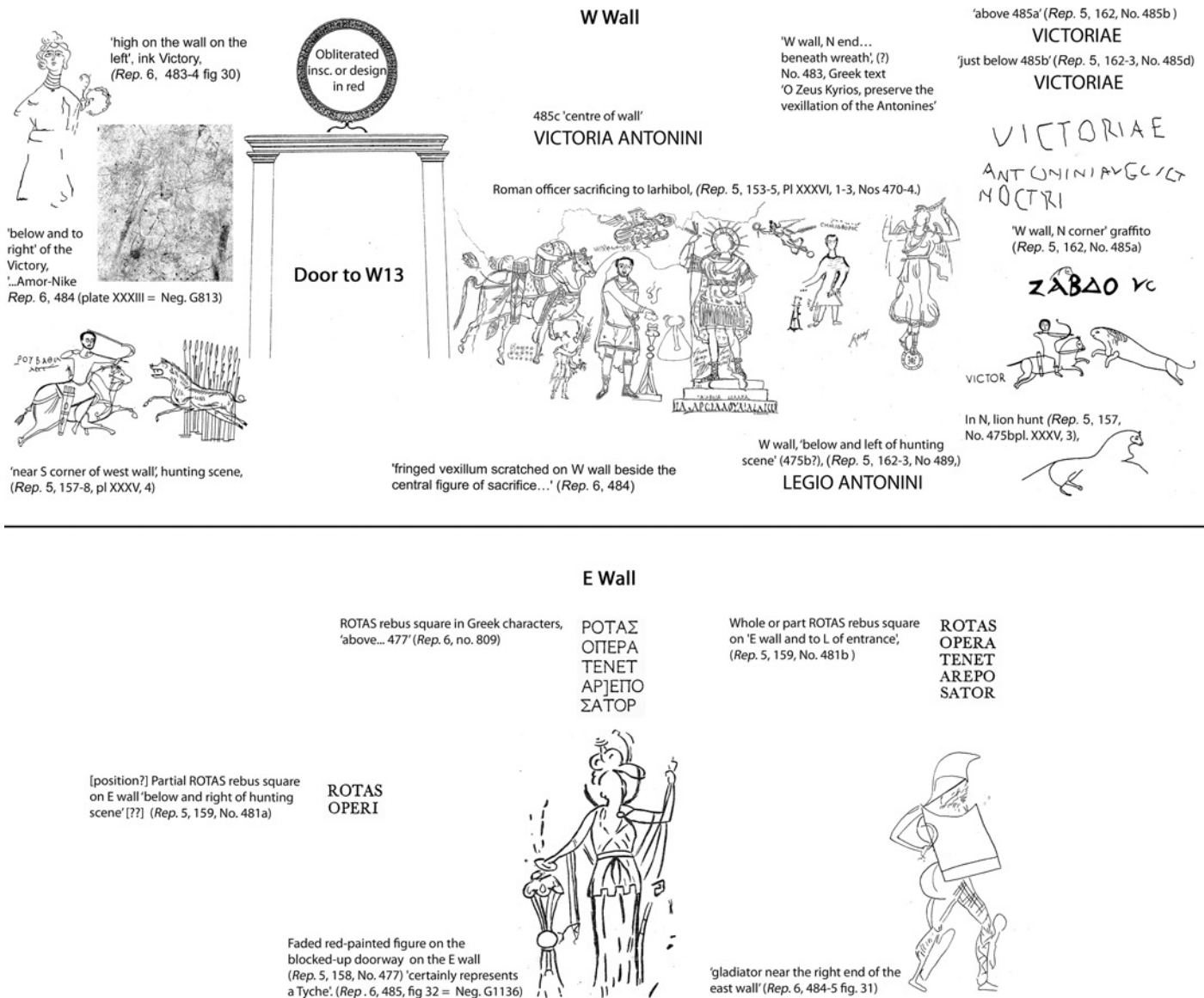


Fig. 5.10. Tentative reconstruction of the more prominent images and texts on the walls of E7-W14; schematic, not to scale. The rear, N wall was largely missing on excavation.

compound seems carefully designed to minimize disruption to the sanctuary as a functioning place of gathering and worship. Only the rear area of the *temenos* was taken over, leaving unaffected the core of the E-facing temple, including the main entrance, both main *naoi*, and the areas in front of them. The intention seems to have been to leave the sanctuary as intact as possible, and fully usable. So was worship indeed continued, but perhaps confined to soldiers and others living in the base? Did the authorities at least permit civilian priests and sacristans to maintain cult and buildings? No civil inscriptions or building works in the temple are datable to after Roman annexation of the city. However,

this does not mean that all undated texts are pre-Roman. Most of the temple was anyway too poorly preserved for less formal texts to survive. Equally, no military texts were identified in the temple outside the walled compound. Martial artefacts recovered elsewhere in the sanctuary (below) seem to belong to the last years of the city, and preparations for siege when both compound and temple were trashed. So, beyond the military compound wall, did the temple simply stand preserved, but locked and abandoned through the Roman period? It will be argued that, on the contrary, there was probably significant if regulated civilian access to the temple (pp. 288–290).



Fig. 5.11. Early Severan inscription from room W12 in the military compound of the Temple of Azzanthkona (no. 561).

The Temple in the Last Years of the City

It seems that in the 250s the compound wall was slighted, with a door-width breach at its N end allowing passage across the site close to the city walls, and perhaps a wider breach across the temple court. If this was not done during the probable first Sasanian occupation around 252–3, then it was likely to allow free access along the wall line to military builders strengthening the city walls, and then to defenders manning them.

In anticipation of the final siege, probably in 254, mud-brick walls were constructed through some of its rooms, and the spaces filled with dumped material (PR 5, 136). In the military compound, W13 was simply filled with earth, W12 and W14 with mud brick (PR 5, 151). This is likely the context for deposition of a group of horse-harness fittings in E7–W9 (FR 7, nos. 201, 207–12, etc.). The temple showed extensive evidence of destruction by fire (PR 5, 170), presumably in the final sack.

THE PRINCIPIA ('PRAETORIUM'), E7

Discovery, Excavation, and Recording

From its characteristic plan and recovered inscriptions clearly a military headquarters, the building was excavated in the fifth season by David Clark around the turn of 1931–2, and published by Hopkins and Rowell (PR 5, 201–34, pls X.2, XI.1–2, XXII.2 with a tiny plan of the building within a larger drawing; Fig. 1.14). A new survey and some small-scale re-excavation were conducted in 1990 and 1996 by the

late Maurice Lenoir and Corinne Licoppe under the auspices of MFSED (Lenoir and Licoppe 2004; Lenoir 2011, 51–3, 328–36). The building was resurveyed and closely examined with further targeted cleaning between 2007 and 2010 to produce the new plan (Fig. 5.12).

Hopkins and Rowell (and later Gilliam: PR 9.3, 69 n. 1), were aware of the argument that, since in permanent Roman military bases the commander no longer resided in the HQ building, the term *praetorium* should be used for the separate residence, and *principia* for the administrative structure, but opining that this suggestion had not caught on, they opted to stick with *praetorium* (PR 5, 205). However, '*principia*' has since indeed become universally established, and is adopted here.

At the time of discovery, the *principia* ruins were among the most obvious remains in the city interior. The main range was evident as a substantial mound, with part of the S wall of the cross-hall still projecting several metres above the surface (Fig. 5.13). The old Ottoman road through Dura ran across the forecourt of the building. During excavation traffic was temporarily diverted to the S over block E8, but the road was later reinstated, resulting in reburial of features within the *principia* and, equally importantly, adjacent to the W.

The Archival Record

No excavation notes survive. Clark's 'account', which Hopkins and Rowell used, is lost (PR 5, xvii–xviii). Some photographs of the building before, during, and after excavation exist, including details of structure and fixtures, and the inscriptions. Detweiler also produced elevation drawings in 1937 (Figs 5.14 and 5.15), and an inaccurate aerial-view reconstruction (neg. Y597). There are, however, no less than seven separate archival and published Yale plans, which vary and even contradict. It seems the only complete plan—including the altars, shrine 19, and SE corner of the court with drain—is the detail of the larger archive drawing (Fig. 1.13) which is, however, not entirely accurate, including what appear to be erroneous speculations shown as though actually observed, notably the W wall of shrine 19 and its continuation S. A later Detweiler plan (E7 N.3) lacks details lost or hidden again following reinstatement of the Ottoman road.

The spatial numbering system used in block E7 has anomalies. The Temple of Azzanathkona and the *principia* had separate sequences each starting (as normal for houses and other courtyard buildings at Dura) with 1, the court. However, both sequences were extended outside the spatial confines of the block. While spaces on its W side, still within the nominal grid footprint of block E7, were reasonably assigned numbers in the *principia* sequence (albeit erroneously duplicating 39), so too were rooms to the E excavated at the same time within the footprint of E5, even though these demonstrably did not communicate with the HQ building, and

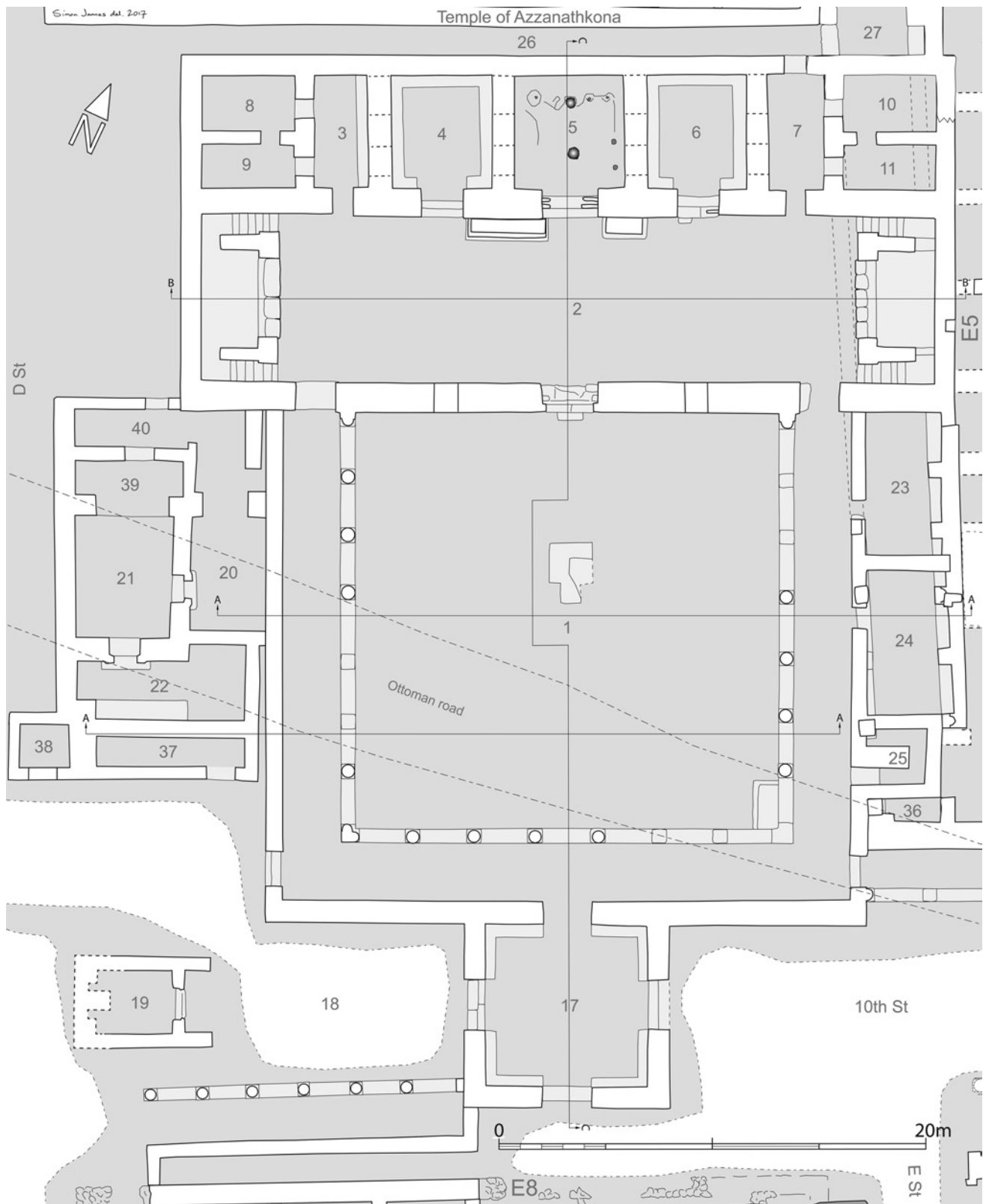


Fig. 5.12. Plan of the *principia* and surrounding structures, based on archival plans and new survey.



Fig. 5.13. The *principia* in the fifth season, before (top) and during excavation (bottom). The tall finger of masonry on the upstanding wall appears to have fallen between photographs.

should have received E5 numbers (a separate E5 sequence was indeed applied to other rooms dug further E: Fig. 5.5).

General Description

The *principia* (Fig. 5.12 and Pl. XIV) comprised three components: main cross-hall (2) and dependencies; forecourt (1) and dependencies; and forehall (17) straddling the line of 10th St. Besides the building W of the forecourt already mentioned, there was also a small shrine complex W of the forehall (18/19).

The *principia* occupied roughly the S half of block E7, separated from the Temple of Azzanathkona by an alley. Although the length of the cross-hall corresponded closely to the width of the block, the building was not sited within the footprint of E7 defined by the street grid: its forehall was built across 10th St to the S, but more curiously, the entire building was 'displaced' to the E, overlying the former line of E St. The resulting space between its W side and the line of D St was partly occupied by a small, non-communicating neighbouring building, which likely holds the explanation to the *principia*'s curious position (pp. 88–90).

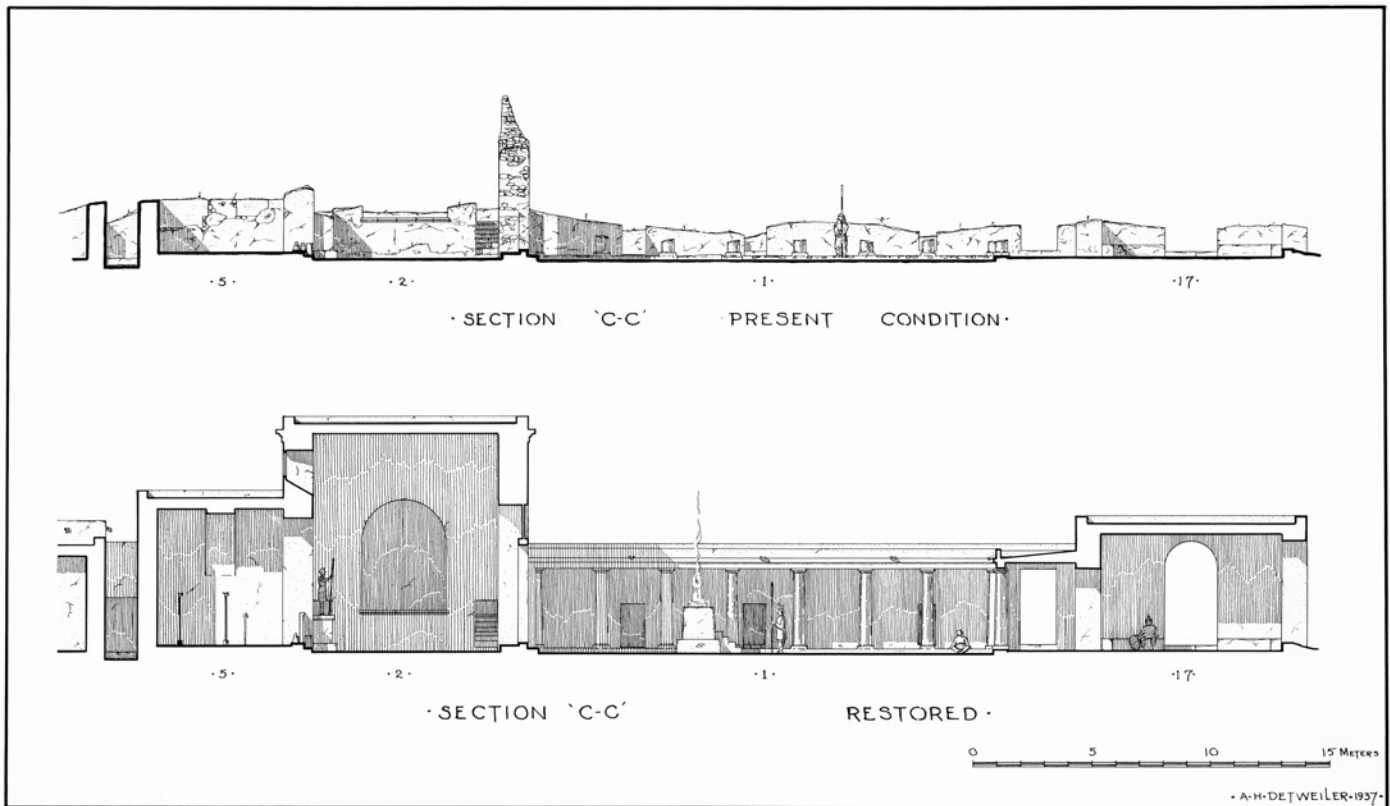


Fig. 5.14. *Principia* N-S elevation drawing by Detweiler.

While in conformation a conventional *principia* building, it was largely constructed using Durene materials and techniques: mortared rubble from foundation level, carried right up to the roof for the major walls of the cross-hall and in the columns of the colonnade, but elsewhere supporting mud-brick superstructure. The entirety, including the flat ceiling of the cross-hall, was plastered. Roofs were apparently flat (PR 5, 214). The basically Durene nature of its fabric is also seen in the local-style stepped altar in the court. That said, it represents adaptation of local style, with fired brick in the tribunal steps and bonding courses in the cross-hall walls, and also use of some timber lacing in the mud-brick superstructure of the cross-hall dependencies (Fig. 5.16), a peculiar technique otherwise attested only in room 28 of the Roman Palace, and suggesting they were built around the same time.

Cross-Hall and Dependencies

At discovery, the S wall of the cross-hall stood up to 6m high 'and the building may have been originally considerably higher', with side entrances from the colonnades, and a central door 2.27m wide (PR 5, 212; Pls XIV–XVI). A window on each side, 1.25m above ground, 1.3m wide, was apparently unglazed (PR 5, 212), although they almost certainly had wooden shutters to keep out wind, rain, dust, and sun.

As the central door was directly opposite the *aedes*, room 5, so the windows aligned with the wide doors of 4 and 6. A large, cut, red-painted inscription to Caracalla was found on the 'arched lintel block of gypsum' fallen from above the central doorway facing the court (PR 5, 212, no. 556). In 2010 the better-surviving E doorway still retained sockets for round lintel beams 3.1m above the sill (PR 5, 212). The 'W doorway produced a stone fragment naming *legio III Cyrenaica*' (PR 5, 212, no. 557; Fig. 5.17).

Fallen ceiling plaster with reed impressions was found on the hall floor (Fig. 5.18), which supposedly consisted of a plaster layer c.1cm thick over hard-packed coarse red sand (PR 5, 214). Very thin for a floor surface, this was more likely a post-abandonment deposit of eroded plaster rain-washed from the walls.

The twin tribunals stood 1.65m high, each with two narrow staircases and plaster décor (PR 5, 213; Fig. 5.19). On the N side of the cross-hall, pilasters flanking the axial room 5 bore dedicatory inscriptions on gypsum blocks. These likely once carried imperial busts or statues of Caracalla and Geta (PR 5, 214; Figs 5.15 and 5.25).

Five doors in the N wall gave access to a symmetrical arrangement of ancillary rooms. The axial room 5 was the chapel of the standards (*aedes*). There was no cellar/strong-room beneath it, seen at other military sites. Holes in the

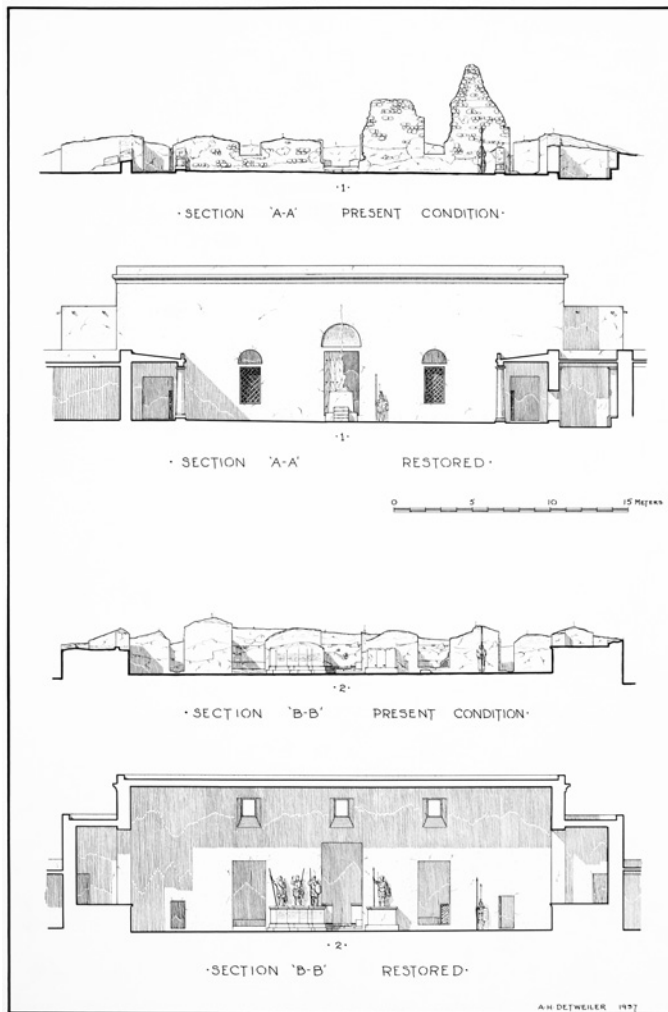


Fig. 5.15. *Principia* E-W elevation drawings by Detweiler.

floor, of plaster and cobbles over a stone foundation, were interpreted as supporting a table or shelf, for the standards or maybe fixed sockets for them, and perhaps other cult objects. A hole c.0.5m wide in the midst of the floor may have been for an altar (Lenoir and Licoppe 2004, 61, fig. 5), additional to that in the main court. Wall plaster was almost all lost, so no graffiti were preserved. The wide portal was restricted by pierced stone screens, and grooves perhaps for sliding gates, probably replacing earlier swing-doors for which a pivot was visible (PR 5, 215).

The rooms flanking the *aedes*, 4 and 6, seem to have had arrangements at their entrances similar to room 5 (PR 5, 215). Room 6, at least, still had a fragment of pierced stone lattice-screen *in situ* (Fig. 5.20). Both rooms were lined with benches.

In the NW, corridor 3 led to intercommunicating rooms 8 and 9. In the NE, this was mirrored by 7, 10, and 11, with corridor 7 also leading to a door through the rear wall of the building, giving onto the lane behind the *principia* and the entrance area of the Temple of Azzanathkona. Likely all



Fig. 5.16. Details of construction in the *principia* around the SE corner of room 6, soon after excavation (top) and in 2008 (bottom). L, the peculiar composite construction of side walls, with masonry and brick structure infilled with mud brick laced with timbers, which had decayed leaving voids. Top R, part of a pierced stone screen across the entrance still *in situ* (see Fig. 5.20).

these lateral rooms had wooden doors; plaster preserving the form of the doorframe of 11 survived in 2010.

The Court and its Dependencies

S of the cross-hall lay the squarish forecourt (1), colonnaded on W, S, and E. This provided the main public access to the building via the axial S door and forehall, and secondary street doors at its corners (Fig. 5.21). The SW door led towards D St, the SE door onto the N colonnade of 10th St. The court also had a range of rooms on its E side (23–5).

The court colonnade terminated in engaged columns against the cross-hall, with square piers with double engaged



Fig. 5.17. Inscription 577 from the *Principia*, attesting *Legio III Cyrenaica*.

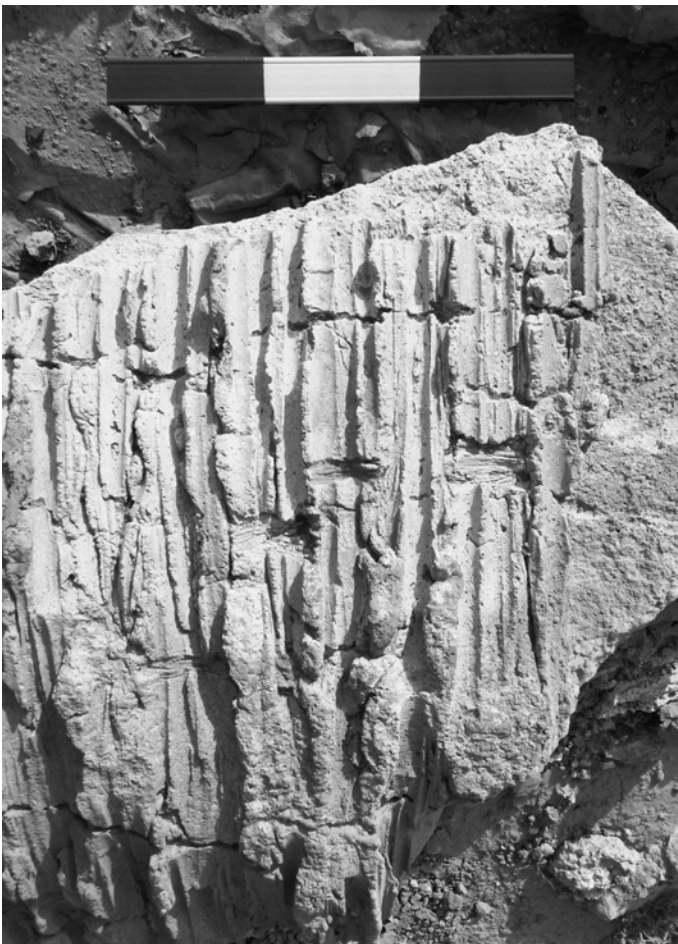


Fig. 5.18. Fallen plaster from the *principia* cross-hall ceiling showing reed impressions. Scale 300mm.

half columns at the S corners. Some columns had traces of red paint, later plastered over (PR 5, 211).

Just N of the centre of the court lay the foundation of a plastered rubble-built altar, $2.1 \times 1.83\text{m}$, aligned on the central axis of the building, facing the great central door and the *aedes* within (PR 5, 214). Its plan indicates that this was a local-style stepped altar. Both the form and very presence of an altar here appears to be an example of local or regional religious tradition not generally seen in such Roman military contexts (PR 5, 211). Three fragments of a second stone altar, with four columns, were also found in the SW corner of the court (PR 5, 211). The archive record shows this was a small portable object (Fig. 5.22, a).

The only other feature recorded, now hidden under the reinstated Ottoman road/modern track, was a small basin 'set in the pavement of the southeast corner just inside the colonnade' (PR 5, 211), which led to a drain running SE under the colonnade, for carrying away rainwater (Fig. 1.14).

Further doorways off the E colonnade gave onto rooms 23 and 24, and stairwell 25. This range incorporated elements of standing masonry from earlier structures (Lenoir and Licoppe 2004, p. 63), which had lined the former E St. Room 23 revealed several phases of flooring and bench construction (PR 5, 217). Room 24 overlay an earlier wall on a different alignment, originally marking the W side of E St before overbuilding by the *principia* (PR 5, 217). Stairwell 25 gave access to the roof of the forecourt colonnade (PR 5, 217).

The Forehall

The S door of the forecourt gave onto square forehall 17 which, pierced by four axial doorways, framed the crossing of the axes of *principia* and 10th St. Its E door gave onto the widened stretch of 10th St leading to the F St arch and E3 baths; its W door gave onto court 18 and shrine 19. No provision for doors was observed. The walls were lined with plastered benches. It was pebble-floored, while fallen wall plaster was 'adorned with curving red lines suggesting... simple ornaments' (PR 5, 208).

Worth mentioning, perhaps, was a small plaster half column found projecting from the wall of the house just south of the vestibule. Although quite crudely cut and in poor condition it seems to have been clearly a small, uninscribed altar. Its only decoration was a demi-pillar at each side' (PR 5, 208). Apparently attached to the N Street frontage of Block E8, this feature did not survive in 2010 and is not identifiable in any surviving image.

Use and Functions of Spaces in the Principia

If exhibiting interesting peculiarities, in form the *principia* building was a standard imperial headquarters, laid out axially



Fig. 5.19. *Principia* E tribunal.



Fig. 5.20. Detail of screen at entrance to room 6.



Fig. 5.21. The newly excavated *principia* forecourt, with the end of the N colonnade of 10th St colonnade in foreground and rooms on the former line of E St at right.

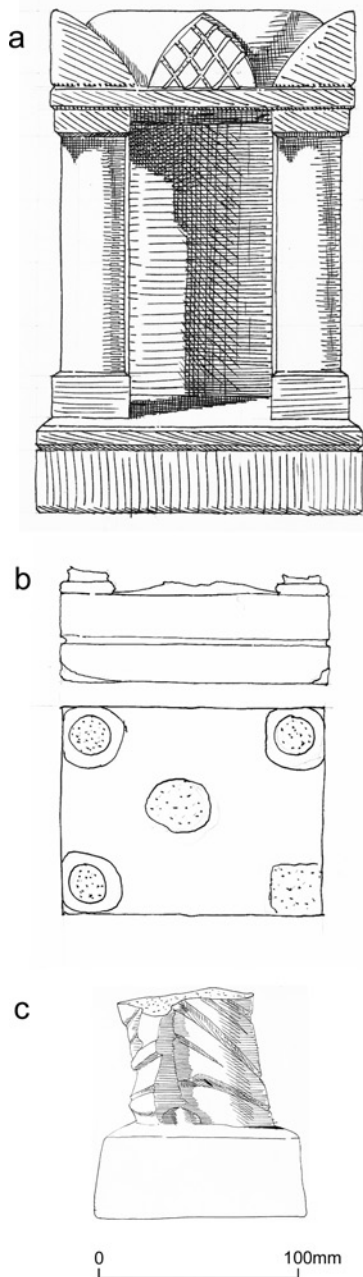


Fig. 5.22. a. Reconstruction drawing of fragments E598a–c of an altar found in the principia court, from an archive file card. The indicated scale suggests it was just 250mm tall, with a ‘3½ cm depression’ in the top. b. Archive file-card drawing of the base of a similar altar (E793) from the small shrine E7-19. c. Archive file-card drawing of a fragmentary statuette from shrine E7-19 (E792).

around the focus of the *aedes* (5), before which lay a great cross-hall, and colonnaded court beyond. Secondary spaces cluster around this core arrangement. It is possible to infer in some detail how the various spaces were used, and by whom.

Graffiti and inscriptions from the building are solely legionary, mentioning *legiones III Cyrenaica*, *III Gallica*,

IV Scythica, and *X Antoniniana (Fretensis)*. Lenoir recorded a new graffito on the facade of the W tribunal which he read as ‘II P...’, and identified as probably [*cohors*] *II P[aphlagonum]* (Lenoir and Licoppe 2004, 62), attested at Dura (PR 9.3, no. 971) but this might conceivably have been carved by a soldier detached from *legio II Parthica* during one of its deployments to the East. Most texts pertaining to *cohortes XX Palmyrenorum* and *II Ulpia* were found in the Temple of Azzanathkona. ‘It would appear... that this temple served as headquarters for the forces occupying Dura before the praetorium was built’ and that the *auxilia* continued to keep their archives there (PR 5, 216).

A Roman headquarters comprised a number of functions, accommodating the standards and imperial *imagines*, administrative offices and archives, spaces for the giving of daily orders and passwords, and places for formal events like courts-martial and other ceremonies, not least cult offered to the standards and emperors. Perhaps while many record-keeping and other HQ functions of the auxiliary contingent(s) remained located in the Temple of Azzanathkona, more public and ceremonial aspects were centralized in the *principia*. This could account for its unusual twin tribunals (PR 5, 213) permitting e.g. separate meetings of auxiliary and legionary contingent commanders with their centurions.

With regard to division of space within the *principia*, the *aedes* (5) constituted sacred space where unit standards—holy objects—were kept, along with *imagines* presencing the reigning emperor. At Dura, the standards are likely to have comprised mostly *vexilla*, cloth banners hanging from crossbars. The *vexillum* shown in the Terentius painting is probably the regimental banner of *cohors XX*, while formal legionary detachments were called *vexillationes* after these banners which they followed when away from the main body and its precious-metal eagle. The *aedes*, innermost and most heavily guarded point in the entire base, was also probably where the various contingents kept unit funds and soldiers’ savings held in the care of the standard bearers.

The flanking rooms 4 and 6 had benches all around, suggesting gathering spaces, and preserved numerous graffiti mentioning soldiers’ names and legions but not ranks or offices (PR 5, 215). These rooms perhaps served as *scholae* for important groups like the standard bearers and musicians who from Severan times formed military *collegia* (PR 5, 208), and/or were used by *excubitores*, guards of the standards (e.g. *P. Dura* 82.i.17).

Fragments in room 8 and 9 of an inscription to *IV Scythica* were found, mentioning a *librarius* and four *adiutores* (PR 5, 216, 224–6, no. 560; Fig. 5.23), so these NW corner rooms were plausibly legionary administrative offices and archive rooms. There are no clues to the purposes of rooms 10 and 11.

The altars in the court point to this as another important sacred and ceremonial space. The masonry-built axial altar, facing the *aedes*, implies that rites involving the standards and/or the imperial cult were performed in the court, which, at



Fig. 5.23. Inscription 560 from the *principia*.

roughly 600m² (including colonnade), was large enough to hold 1,000 men, plus perhaps more on the colonnade roof. The local style of the court altar generally chimes with the office of regimental priest attested for *cohors XX Palmyrenorum*, Themes son of Mocimus (*P. Dura* 89.i.2.9: Stoll 2001, 266–7).

Hopkins and Rowell argued that 23 and 24 were *armamentaria*, on the basis of *principia* inscriptions at Lambaesis and Lanchester (*PR* 5, 210), perhaps supported by discovery of armour scales in room 23 (*PR* 5, 217), but these may simply reflect the chaos of the city sack rather than life-use of the room.

Relation to 10th St, and Sanctuary 18/19

The S wall of the *principia* court projected slightly beyond the line of the N colonnade on 10th St, which terminated in an engaged column next to the door which allowed pedestrians to continue in a straight line directly from the street along the S side of the *principia* court and out its SW door. This facilitated direct access between the E and W parts of the NW base area, albeit through closely supervised space (Fig. 5.5). The forehall, with its transverse axis coinciding with the midline of the aggrandized 10th St, might also seem to facilitate such E–W access, and perhaps did, but

structures on its W side suggest this route was also restricted or supervised: at least, the forehall could not be bypassed.

To the W of *principia* forehall 17, also straddling the line of 10th St, is a small additional complex comprising additional court 18, bounded on the W by small orthogonal building, E7-19, ‘3.18m wide and 3–4m long’ (*PR* 5, 210: interior dimensions, externally it is c.4 × 6m). The interior retained some plaster still in place. It was aligned on the central axis of the widened and colonnaded stretch of 10th St, from the centre of which the entrance to 19 was framed by the forehall doors.

The S side of 18 was bounded by a wall running off the SW corner of the forehall and turning W on the line of 10th St, forming the back wall of a colonnade. It turned S before reaching the line of D St, to meet the N wall of E8 beside NE corner entrance 69 to the E8 military housing. This wall prevented anyone on 10th St bypassing the *principia* to the S.

E7-18 and 19 appear to constitute a small sanctuary in an unusual location, at a spot which in most Roman forts would have occupied the line of the *via principalis* across the front of the *principia*. Archival photos and drawings indicate the W end of 19 was already virtually obliterated at discovery, its NW corner lost. When re-examined in 2007, walls standing 250–300mm high in the 1930s (Fig. 5.24) were almost gone. However, cleaning revealed internal plaster lines and the E threshold, confirming the location, form, and size of the structure, built in normal Durene mortared-rubble footing construction. Its main E–W walls terminated in *antae* defining an inset E door. Cleaning the W end revealed a white mortar-like deposit indicating position of the back wall, its W edge aligned on the D St frontage. The E edge of this deposit, including a fragment of *in situ* facing plaster near the SW corner formed part of a line suggesting a rear niche with projecting altar or statue base. After 2007 recording, the remains were re-covered with earth to protect them.

Building 19 was originally interpreted as a military ‘*schola*’ (*PR* 5, 210). Its form suggests a small temple or shrine, facing onto the part-porticoed 18 constituting its *temenos*. E7-19 produced parts of a small altar and statuette (Fig. 5.22, b and c). The building was also literally oriented. It does not stand on any significant podium, but from its proportions may have been distinctly classicizing, perhaps with a pedimented roof like that attested at the *campus* Zeus temple.

With regard to phasing, the wall forming the rear of the colonnade of 18 was built against the external plastering of the *principia* forehall, as was the first, engaged column, so it is stratigraphically later. However, it may well have been built immediately after erection of the *principia*, as an integral part of the reorganization of the S half of E7 caused by construction of the HQ. Further, the position of this temple appears odd, on the centreline of a major street—although 10th St is completely blocked by the E3 bath not far to the E, while to the W, behind room 19, 10th St seems also to have been entirely built over. But why a shrine here? These matters are returned to below.



Fig. 5.24. Portico 18 and (right) shrine 19 on the axis of 10th St to the S front of the *principia*.

Building W of the principia Court
(Rooms 20–2, 37–40)

Another modest structure, between the line of D St and the blank W wall of the *principia* court, was not directly accessible from the HQ building (Fig. 5.12, L). A simple plan survives as part of Pearson's large drawing of the central base area (Fig. 1.13). It was published only as a tiny detail in the published base-area plan (PR 5, pl. III; Fig. 1.14), with a cryptic note that W of the court lay a 'a structure wholly separate' from the *principia* (PR 5, 211).

It lay mostly under the Ottoman road, and was excavated when the carriageway was temporarily diverted to allow the *principia* court to be dug. As the subsequently reinstated track was still used in 2010, much of it was inaccessible. Although some walls could be roughly traced, and elements re-examined by Lenoir and Licoppe (Lenoir and Licoppe 2004) and myself, the exposed part was much eroded and obscured by vegetation, so a proper resurvey was not possible. The drawing is a tracing of the archive plan.

Lenoir and Licoppe cut a *sondage* which they believed showed this block was later than the *principia* (Lenoir and

Licoppe 2004, 63). However, details of the plan look more like fragments of a pre-Roman building. Room 21 had doors with substantial thresholds and jambs of a pattern not employed in the *principia*, but typical of Durene civil structures. My own *sondage* examining the intersection of the N–S wall at the E end of 40 with the S wall of the cross-hall clearly indicated that the former had been cut back to accommodate construction of the *principia*. Spatial arguments (below) suggest that the structure was indeed a preserved part of an important earlier complex otherwise demolished to make way for the *principia*.

The Roman-era plan as recorded seems to comprise three units: Room 37 was isolated, accessed only from its SE corner, close to the SW *principia* court door. The small room 38 also seems entirely self-contained, standing on the very corner of the 10th St–D St intersection. The rest of the building comprises a five-room unit apparently accessed only from the N.

Critically, room 21 is obscured by the modern track, especially unfortunate as the plan suggests that this was the most substantially constructed, and probably most important, room in the building. Its heavy walls and elaborated doorways

suggest the Roman-era building of which 21 became the core was a retained remnant of structures occupying the S half of E7 before the *principia*. The positions of the walls around 21 convey further clues pointing to the pre-Roman purpose of this structure, discussed below. The small, isolated room 38, standing at the junction of D and 10th Sts, appears to have been a Roman-era addition, perhaps a guard post, e.g. for surveillance of night-time movement within the area; a similar ‘sentry box’ existed on I St before the Roman Palace was built. Room 37, in the garrison period apparently separated from the rest of the block, stands comparison with the ‘shelter’ in D St opposite the entrance to J1-A.

Phasing and Chronology

The *principia* was constructed between February 211 and February 212 on epigraphic information (PR 5, 206, and 218–20, no. 556), or at least completed in that bracket. It appears generally to be a single-phase structure, with a few modifications, such as extension of the W inscription plinth in the cross-hall (Fig. 5.25). Extensive alterations were recorded in room 23 (PR 5, 217). The colonnade defining subsidiary court 18 was stratigraphically later than the fore-hall, but putative sanctuary 18–19 was probably built immediately following construction of the *principia*, as part of the associated aggrandizement of the adjacent stretch of 10th St.

The *principia* was at least partially destroyed by fire. Room 23 contained extensive blackened fallen debris, and some armour scales, while four other doorways revealed traces of a major conflagration (PR 5, 217).

Rationale for Siting the principia: Another Unrecognized Sanctuary in E7

As expected from known Roman practice, the *principia* building was established in the midst of the base area, but



Fig. 5.25. Plinth in the *principia* cross-hall, bearing inscriptions.

why was it sited exactly where it was? At the size chosen, it could have fitted comfortably between D and E Sts without blocking either. Why then, relative to the confines of block E7, was it offset to the E, apparently unnecessarily blocking E St? Why not go further, and align the *principia* axis on E St, or the wide D St, using one or other as an axial *via praetoria* with 10th St as a *via principalis*, creating the ‘T’ of streets to the front of the HQ typical of Roman ‘playing-card’ forts in Europe? This puzzle has never been fully addressed. However, the explanation for the strange position of the *principia* lies in the previous layout and usage of the area.

It is implausible that the building was simply sited eccentrically to reuse standing structures along E St, saving some time and effort in building rooms 23–5—at the cost of blocking a road line. Instead a reciprocal explanation is offered; that the *principia* was ‘displaced’ to the E by a concern *not* to impinge on structures to its W (a possibility also mooted by Gregory 1996, 162).

Siting the *principia* was a compromise guided by the principle observed elsewhere in the base, of fitting military installations where practicable into the pre-existing urban environment, minimizing disruption. While the HQ needed to go into this general area, its precise location was constrained by existing streets and buildings. I suggest that the explanation for its exact siting was very local: the military authorities decided that preserving specific pre-existing structures and functions in the S half of E7 was essential; and that at this point the line of E St had anyway long since ceased to be a public thoroughfare, so little would be lost.

There are indications of pre-existing constructions of some pretension framing E St beside the S half of E7, directly incorporated into the SE range (23–5) of the new *principia* forecourt as upstanding masonry, although on a slightly different alignment (Fig. 5.12). On the E side these comprised walling with projecting engaged piers, and on the W side a broad masonry foundation carrying matching freestanding piers. This suggests that the line of E St was roofed here, as it was to the N, in the form of the portico of the Temple of Azzanathkona. These early remains indicate monumentalization of the line of E St apparently from 10th St to the final pier against the corner of the Temple of Azzanathkona. The apparent function of this was to form an eastern portico-cum-porch structure, accessible from 10th St and Azzanathkona, facing W onto another large open court in the S part of E7.

It is suggested that, before the *principia*, the S part of E7 was occupied by another courtyard temple which, like the adjacent Temple of Azzanathkona, had co-opted the stretch of E St as part of its property, if not as sanctified ground (Fig. 5.26, a). A similar practice is seen where G St was gated off where it ran along the front of the Temple of Artemis Nanaia in H4 (PR 3, 4, pl. IV), turning it into “‘sacred street’ (*propylon*)...” (Leriche 2016, 159). E St was in any case not an important axis: it was also cut to the S at 4th St, where its line was overbuilt by block G5/G7 in the agora district.

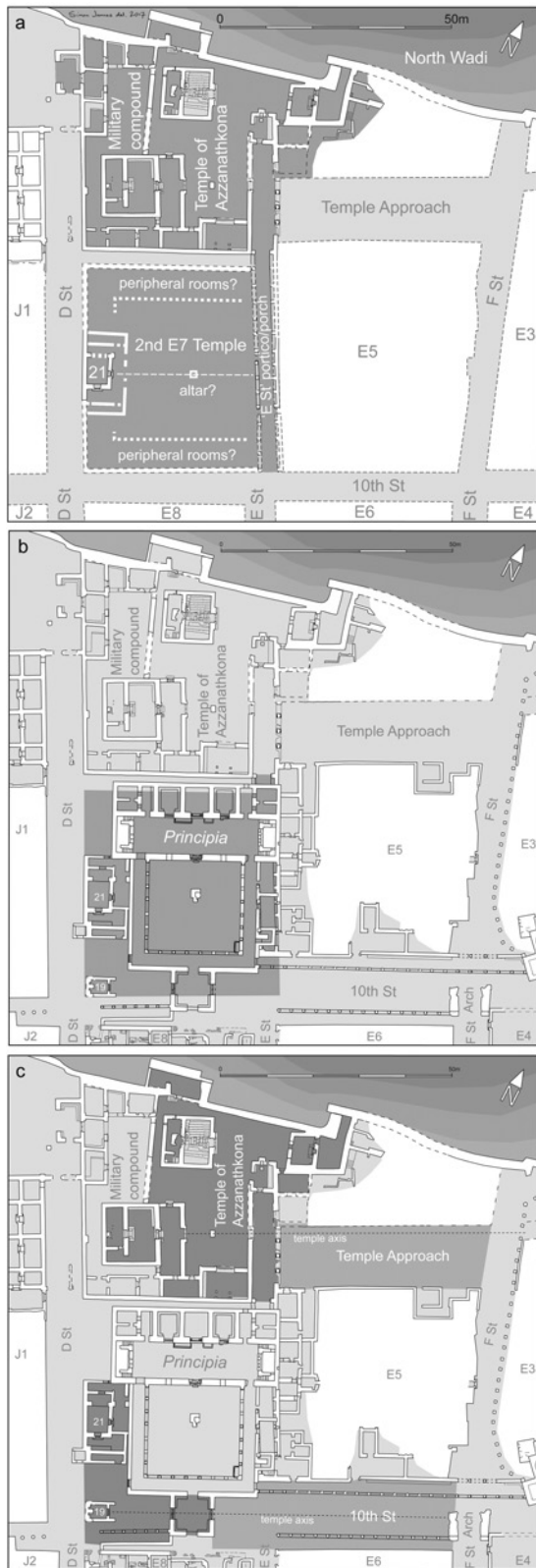


Fig. 5.26. Proposed sequence of reorganization of E7 caused by construction of the *principia*: a. hypothetical original arrangement, with two temples both co-opting E St as their E frontage. As seen in

If the S half of E7 comprised another courtyard temple, its central court will have roughly corresponded to the subsequent *principia* court. However, the *principia* faced S, while like other Durene sanctuaries the pre-existing temple likely faced E, its principal shrine room in its W half. This circumstance was responsible for the eastward displacement of the *principia* building. The former temple was judged too important to obliterate entirely, whether for reasons of genuine piety, as a calculated concession to civil Durene feelings, or likely both. Which brings us to the curious building between the W wall of the *principia* court, and the line of D St.

I propose that this structure was a preserved fragment of the second courtyard sanctuary in E7, and that room 21 was the inner shrine room of the temple (Fig. 5.26, a). If this is so, then the E door of 21 would constitute the central axis of a proposed larger shrine building or *naos*, built against the back wall of the *temenos* like that of the Temple of Atargatis in H2. It is noteworthy that a pair of surviving E–W wall lines to the N of this door were symmetrically mirrored about its axis by two to the S, while N–S wall fragments may mark the E extent of the *naos* structure, a footprint which the later *principia* carefully respected.

The *temenos* within which this *naos* was set was bounded by D St to the W, the E St-line portico to the E, and to the S by the original line of 10th St before its widening by the garrison. It probably did not directly adjoin that of Azzanathkona to the N, as no sign of abutting walls running S from Azzanathkona's perimeter wall was identified. More likely there was always a lane between the temples, like that across the middle of H2 separating the Temple of Atargatis from the rest of the block. Allowing for this suggests that the putative *naos* centred on 21 was roughly axial to the reconstructed *temenos*, with plenty of space on N and S for the rows of peripheral rooms seen in other Durene temples.

It is further proposed that there had been an altar in the middle of the temple court, on the axis of the door to 21 (Fig. 5.26, a). Its projected position very closely corresponds to the site of the later altar in the middle of the *principia* court, unlikely to be accidental (Fig. 5.26, b).

The deity or deities venerated in this pre-Roman temple are unknown. However, the newly identified sanctuary is probably that already known from three inscriptions found incorporated into the structure of the Mithraeum, attesting the so-called 'shrine of Epinicus and Alexander', otherwise unknown (PR 7/8, 128–34, nos. 867–9). One is undated but

the 190s, with the early military compound created at the rear of the Temple of Azzanathkona; b. how the *principia*, associated constructions, and 10th St widening related to the footprint of the earlier S sanctuary in E7, of which a fragment was preserved intact; c. how this new arrangement preserved but reconfigured the S sanctuary, with widened 10th St serving an ancillary role paralleling that of the approach to the less drastically remodelled Temple of Azzanathkona.

the other two were set up in the later 110s immediately following the end of the Trajanic occupation. They attest two priests of an unnamed god, father and son, building a *naos* and later renovating and embellishing the sanctuary after the departing Romans looted its doors. That these inscriptions were reportedly found built into the Middle Mithraeum is consistent with demolition of the text-attested sanctuary in the early third century AD, exactly when the S E7 temple was being partly razed to make way for the *principia*.

Insertion of the *principia* resulted in massive disruption of the sanctuary, with demolition of all peripheral structures, incorporation of its E portico into the new building, and widening of the 10th St axis over the S part of the former *temenos* (Fig. 5.26, b). However, it is suggested that preservation of the central *naos* indicates military care to ensure direct continuity of the sanctuary. At first sight it looks to have been brutally reduced, with the side wall of the *principia* forecourt running across the front of the *naos*. Yet there appears to have been much more to the Roman scheme to preserve the sanctity of the place, producing a result in some ways grander than the original sanctuary.

In Roman times, the old *naos* building centred on room 21 lay just N of the small new Roman military sanctuary 18/19 discussed above. The curious location of this now becomes explicable in terms of the earlier history of the site. It turns out that shrine 19 stands precisely within the SW corner of the old block E7 as it was before Roman widening of 10th St, and so was built within the bounds of the posited pre-*principia* *temenos* (Fig. 5.26, b). With the old *naos* to its N, this shrine now represented part of a drastically reconfigured, but carefully conserved sanctuary—which was further enhanced by imposing new structures to its E.

While the new shrine 19 and court 18 were small, they formed the W focus of a major new spatial layout: the door of 19 was framed by the *principia* forehall, and the widened, colonnaded stretch of 10th St (Fig. 5.26, c). Indeed, the colonnaded street strikingly parallels the ‘temple approach’ before the entrance to the Temple of Azzanathkona just to the N, both leading off F St. The new 10th St arrangement, which provided a grand circulation space at the centre of the base area, likely also always had a religious function too, compensating the local god for partial eviction from his/her established shrine through a visually impressive new arrangement. On the other hand, it seems that there was no direct access from the rooms around 21, which had to be approached from the N, to 18/19. Perhaps while continuity of hallowed ground was considered necessary for the siting of 19, it was actually dedicated to a new and different, Roman deity, who shared a preserved *temenos* with the old god, but they turned their backs on each other.

Requisitioning of most of the former sanctuary for the new *principia* was anyway no simple secular take-over of holy ground. A core function of a Roman headquarters—curation of military standards and imperial *imagines*, themselves holy

objects—involved construction of a religious sanctuary to store them (the *aedes*, E7-5) and sacrifices to them. It was noted above that the most likely location for an altar at the centre of the reconstructed pre-Roman temple court corresponds almost exactly with the site of the later *principia* court altar facing the *aedes*. This implies direct continuity of sacrifice at the ritual focus of the former *temenos*. Perhaps the established god of the place was also venerated in the *principia* itself.

There are, nevertheless, still also important secular considerations here, as HQ buildings were administrative centres too. Where, before 211, was the HQ for the already-substantial Roman garrison? This may simply have been the military compound known in the Temple of Azzanathkona, but it could well be that the military had similarly already taken over part of the putative southern E7 temple as well, some time before the site was converted into a regular *principia* building. Perhaps by 200 the garrison already controlled the hypothesized N range of temple rooms across the street from the J1-A house, the site of the later *principia* cross-hall and offices.

Detailed re-excavation would be needed to test this reconstruction, but it makes sense of the data. The importance hypothetically attached to preservation of the room 21 complex might also explain why the *principia* plan is strictly symmetrical in its main block but not so around the court. On its W side it had no range matching 23 and 24 on the E, an arrangement which puzzled Lenoir (although he noted this asymmetry is paralleled at Lejjun: Lenoir and Licoppe 2004, 58–9).

The *principia* is also slightly rotated clockwise off the city grid, because it was laid out from the axis of the lane forming the N boundary of the slightly irregular quadrilateral complex it succeeded, as this same alignment is seen in the E–W walls of the W building. Consequently sanctuary 19 and colonnaded 10th St, laid out from the *principia*, are also aligned slightly off-grid.

CHANGES TO 10TH ST: THE ‘VIA PRINCIPALIS’ THAT NEVER WAS

Discovery, Excavation, Recording, and Publication

During exploration of the newly recognized military base in the fifth season, the excavators largely cleared the stretch of 10th St from the *principia* and neighbouring structures abutting D St, eastwards to the E3 bath beyond F St (Fig. 5.5). Extended W of the *principia*’s forehall which straddles the line of 10th St, this work also uncovered a small shrine and *temenos* (E7-18 and 19, p. 86). E of the forehall it revealed that the street had been widened and colonnaded as far as the E3 bath. No site notes survive, although the excavation was shown in a small-scale published drawing (Fig. 1.14) based on Pearson’s archival plan (Fig. 1.13).

The excavated area of 10th Street was closely examined in 2005. At the intersection with F St two substantial masonry foundations were identified in the roadway, cleaned, and recorded. They were identified as remains of a deep ceremonial arch straddling the line of F St, a prominent structure undocumented in the archive, not shown on any plan and only mentioned in passing in the publications.

Description

This stretch of 10th St, the original course and dimensions of which are visible E of G St, had been doubled in width and colonnaded by the Roman military (Figs 5.5 and 5.6). This had been accomplished by demolishing the street frontages of the blocks forming its N side, primarily E5 but also removing the SW corner of E3, establishing a new frontage several metres further N. Porticos were then built on each side of the road. This aggrandizement led the excavators to immediately identify the exposed stretch of 10th St as 'the Main Street of the camp, the *via principalis*' (PR 5, 207). They were aware that shrine 18/19 straddled the road line just W of the *principia* forehall and, more decisively, that the E3 bath totally blocked the road just to the E, ruling out 10th Street as a conventional transverse *via principalis* running across the front of the *principia* and leading to lateral gates; nevertheless, in the accompanying plan they confidently projected the widening and colonnading of 10th St W of D St (Fig. 1.14). This proved to be fantasy. Trenching on the line of 10th St W of the *principia* combined with magnetometry survey show that in reality it was reduced to a narrow lane or more likely, as with the E3 bath to the E, entirely blocked by military buildings.

Elaboration of the 10th St axis as a feature of the military base was, then, real, but confined to a very limited area, essentially the short stretch between E and F Sts. The resulting space comprised less a grand avenue than an elongated court.

The Colonnades

The roof of the S colonnade was anchored into the N street facade of block E6, which Detweiler's survey indicates was rebuilt on the original line to close off existing street doors, and create a uniform back wall to the new portico. This terminated at the corner of E St to the W, not quite opposite the termination of the N St colonnade at the corner of the *principia*. At its E end on F St, initially the S colonnade terminated in two modest rectangular piers on the line of its stylobate. These presumably originally supported a shallow arch and perhaps gates. Subsequently they were greatly elaborated into a much deeper ceremonial arch/gate (below).

The N colonnade was more elaborate, on a new line N of the old 10th St frontage. It was also longer than the S colonnade, running from an engaged column by the SE entrance to the *principia* court to abut the E3 bath. The

portico was carried right across the line of F St, but did not block it; the rear wall was interrupted, the roof being carried over the street by additional columns. The intercolumniation between the two pairs of columns in the street line was increased to provide a wider gap on the central axis of the thoroughfare although, as the colonnade stylobate was continuous, F St was apparently closed to wheeled traffic to the N.

The E part of the N colonnade in E 5 was, according to Pearson's plan, somewhat deeper than the W part, and appears to have been provided with a long bench, presumably plastered rubble. This was matched by a similar feature the other side of F St, at the E end of the colonnade against the E3 bath. Such street furniture hints at the use of widened 10th St as social space: shaded in summer, the seating would have caught winter sun. No benches were identified along the S colonnade but this was less well preserved, as the Ottoman road/modern track runs across it.

The F St Arch/Gate at 10th St

The excavators reported the S colonnade of 10th St was 'ornamented with an arch which spanned the end of F Street... [which was] probably the main approach this quarter of the city' (PR 5, 207; du Mesnil 1935, 276–7). The archive plan (Fig. 1.13) shows the colonnade ending in two stylobate-width rectangular piers framing the junction of F St with 10th St, foundations for a very shallow arch. However, substantial stone foundations abutting the N faces of the colonnade-line piers were evident in 2005 (Fig. 5.27). Puzzlingly, no description or plan survives of this much larger structure contiguous with the colonnade piers which, on the axis of F St, extend across much of 10th St (Figs 5.5 and 5.28). A review of aerial photographs showed these foundations were excavated before September 1934 (Image cl272, also visible in Z1 of 1936; Fig. 1.12), i.e. by the end of the seventh season. They had not been spotted earlier because the excavators worked mainly by following walls, normally not clearing street carriageways, and so initially missed them. Only after the fifth season report was written did someone notice the S colonnade piers had been extended, and cleared the area. However, although clearly excavated before 1935, Detweiler mysteriously failed to include them in his survey of that year. It was this much larger, deeper structure which Rostovtzeff would later describe as a 'triumphal arch' (1938, 52; see also PR 9.3, 8).

The foundations stood c.0.2m above the 10th St colonnade stylobate, and are each c.1.8 by c.6m, flanking a carriageway c.4.5m wide. The inside faces of the piers apparently accommodated large doors opening to the N, indicating the structure served as a closable gate. The carriageway was wide enough for vehicles, although it would have been a tight turn onto 10th St, while the stylobate of the N colonnade, with a column opposite the arch, indicates wheeled traffic could not proceed further up F St. Pedestrians could reach



Fig. 5.27. Foundations of the arch across F St at the 10th St junction. Top, seen from the N, with column bases and part of the stylobate of 10th St's N colonnade in the foreground. Bottom, the foundations from the S, with the original piers on the line of 10th St's S colonnade in the foreground, and E3 bath right background.

10th St from F St directly via the S colonnade, easily guarded if it did not also possess a smaller door. The whole junction might have been under surveillance from the street door at the NW corner of block E4, a possible guard room.

The piers are presumed to represent a much grander arch across F St than hitherto realized, also evidently gated. While quite substantial, the two mortared-rubble foundations are quite widely spaced. Their superstructure is likely to have been mud brick, plastered and perhaps painted. The presumed arch itself would likely have been a reed-and-plaster false vault suspended from a roof of beams between the piers, like the ceilings in rooms of the Roman Palace.

The E arch pier incorporates at its NE corner another squarish subsidiary pier of unknown purpose. It may be

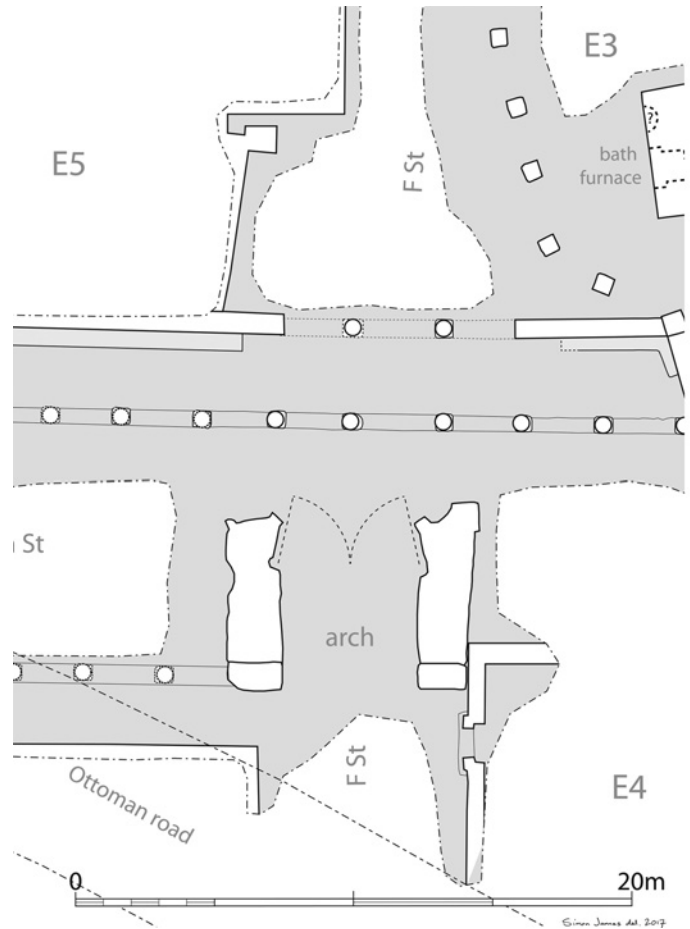


Fig. 5.28. The arch across F St at the 10th St junction, in relation to surrounding structures, including the 10th St colonnades, the change in direction of F St, and the E3 bath.

significant that this point marked the original SW corner of block E3.

The Aggrandized 10th St Space as a Whole

The widened stretch of 10th St comprised, then, an imposing circulation space close to the *principia*. The covered pedestrian axis provided by the N colonnade was aligned at its W end on the S colonnade of the *principia* court. It thus allowed covered access between *principia* and the E3 bath except for a gap of several metres between the end of the colonnade and the door to the bath complex. This somewhat awkward arrangement, by comparison with the neat integration of colonnade and *principia* entrance, is discussed below.

The W end of the colonnaded street offered no long vista, although its axis was emphasized by the structures further to the W: the lateral doors of the *principia* forehall and, when these were open, the small shrine 19. The suggested religious significance of this arrangement, perhaps a key factor in creating the space, was discussed above.

The E end of the colonnaded space is laid out in a very different way. Rather than emphasizing the axis of widened 10th St, it does precisely the opposite. E of F St, the space ended with the main entrance area of the E3 bath, which stands at a marked angle to the street. However, at least in the later phase of the base, perhaps even very soon after the street widening scheme, the bath entrance area was largely obscured by the gated arch straddling the junction of 10th and F Sts. As this was orientated N–S on the line of F St and occupied most of the width of 10th St, it presented its solid W side to the colonnaded space. Here the line of F St across 10th St is apparently emphasized, for reasons discussed later (p. 290), but underlining the fact that, except for the elaborated stretch between F and D Sts, the 10th St axis as a whole had little importance within the base.

Chronology

The engaged column at the SE corner of the *principia* marking the termination of the N colonnade was integral to the HQ building, indicating both were built together. This makes sense as both involved substantial reworking of extant buildings in E5, apparently all carried out as one scheme completed c.211.

The N colonnade also provides a stratigraphic relationship with the E3/E4 bathing complex. The relationship between the last column and the E3 bath (reservoir structure) was hard to discern, the eroded junction between the N colonnade wall and the bath obscurer still. Certainty would require more substantial cleaning than time permitted, but the colonnade looks to have been built up against the already-standing building. This was Detweiler's interpretation on the latest-made plan, Y589. Considerations of plan and layout also indicate that the angled E3 bath was earlier than the colonnade, presenting a *fait accompli* to the colonnade architect who had to make the best he could of an awkward junction between a new space and an existing bath.

Discussion

Since it was not, as initially thought, the central part of a grand transverse axial thoroughfare, what was the colonnaded section of 10th St for? It seems to have been aggrandized partly because it did at least form the terminus of the main entrance route into this part of the base. It is argued elsewhere that the main formal line of approach to the *principia* zone was along F St (the importance of which was emphasized by the ceremonial arch), directly from Main St through the centre of the agora, or from 8th St and the Wadi Ascent Road connecting the *principia* area with the Citadel zone. The porticoed stretch provided a space appropriate for reception or mustering of retinues. Also linking military HQ and E3/E4 bath complex, this was probably the most important and busiest stretch of street in the base. Since it was also

aligned axially on the military temple E7-18/19, it likely further had an important religious function, echoing the similar-sized 'temple approach' before the Temple of Azzanathkona to the N (p. 90).

The arch itself may have been raised to commemorate some specific event (e.g. commemorating an imperial visit), but also served a practical function. It would have been prominently visible along F St from the S. However, why build it blocking half of 10th St, rather than, say, across F St just S of the junction, where it could frame the entrance to the colonnaded street? The likely answer to this is offered in Part III (p. 290). In any case, with its gates, the arch was another installation serving to control movement within the base area.

THE E3 BATH AND E4 PALAESTRA COMPLEX

Discovery, Excavation, Records, and Publication

The heated suite of a bathing establishment (Pls IX and X; Figs 5.29, 5.30, and 5.31, a) occupied the S part of the oddly shaped block E3 near the N wadi defences. These *thermae* were supplied with water via an aqueduct carried on piers along E3's F St frontage from the line of the city wall. The block showed few signs of other structures apart from walling abutting the aqueduct, and another on the G St side exposed in an undocumented trial trench visible in air photo Z5 (Figs 1.12 and 5.5). The shape of E3 had been affected by proximity to the re-entrant in the defences following the lip of the N wadi. F St was diverted E of its regular line and G St W, E3 tapering to the N. An enlarged gap between the third and fourth piers S of the corner of the aqueduct, 2.25m wide instead of the otherwise regular 1.75m spacing between the c.0.6m-square constructions, attests the line of an E–W street defining E3's N boundary. This corresponded to the line of 12th St on the city grid, which magnetometry indicates was actually laid out on the N side of blocks E1 and X7, with the wadi re-entrant diverting its westward continuation. The point where the line passed under the aqueduct was actually aligned on the entrance to the Temple of Azzanathkona (Fig. 5.5).

E3 was, then, a reduced, irregular block, originally conforming to the city grid only on its S frontage. However, the heated bath block was superimposed on this at a marked angle to the grid, its unheated ancillary rooms sprawling across, and entirely blocking, both 10th and G Sts—phenomena demanding explanation. It will be argued that the bathing facility was considerably more extensive even than this, encompassing not only a service yard occupying the rest of E3, still filled by a huge ash dump from the bath furnaces, but also a large *palaestra* occupying the N half of block E4 (Fig. 5.35; a possibility raised by Brown: *PR* 6, 4).

The E3 bath building itself was dug in at least three stages. Most was excavated in the second season, a brief report and

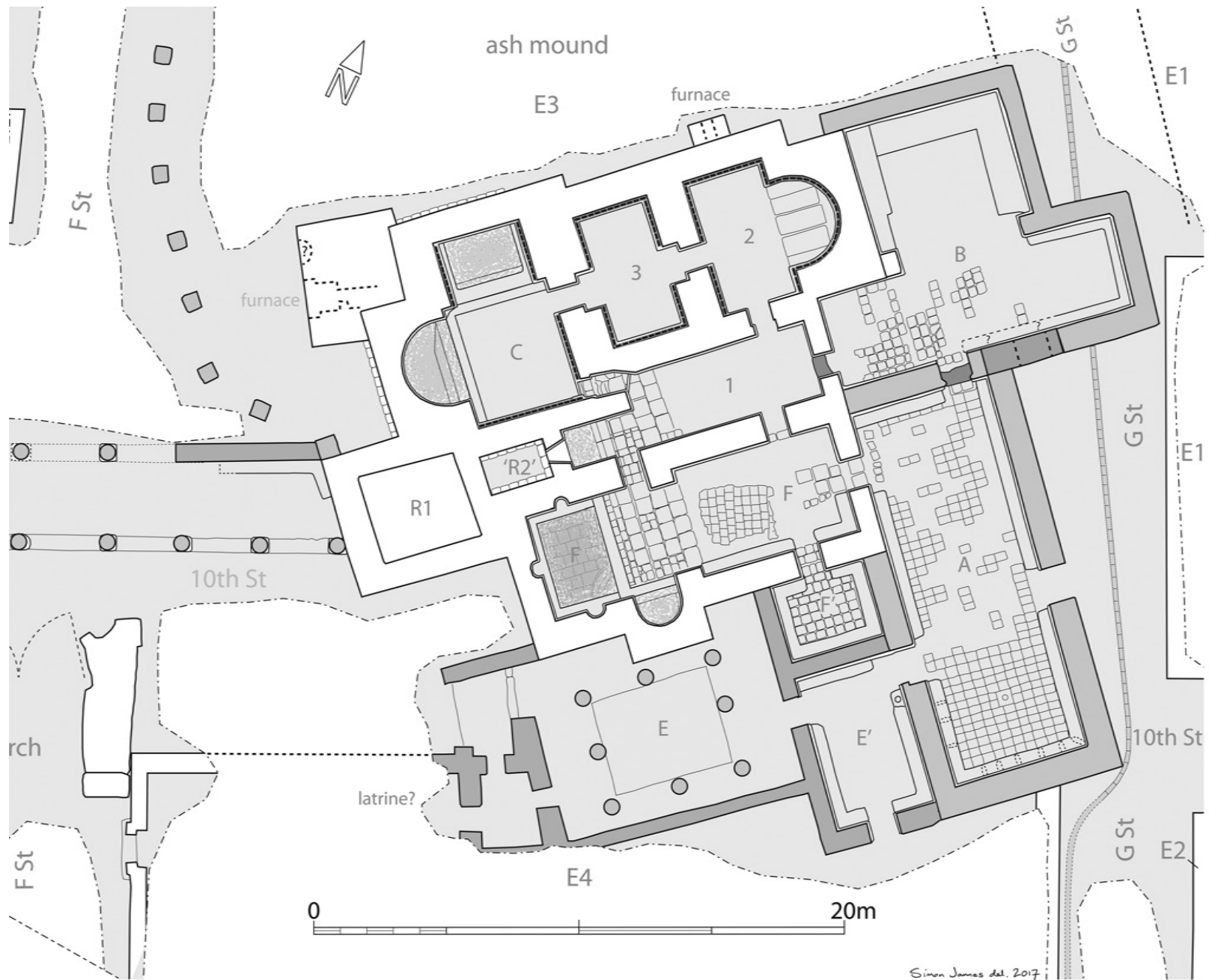


Fig. 5.29. Plan of the E3 bath, based primarily on Detweiler's 1937 resurvey and plan (Neg. Y589), plus direct observations and TS survey points. The wall tones follow Detweiler, distinguishing the brick/concrete bath block from the surrounding mortared-rubble structures, walls with mud-brick superstructure.

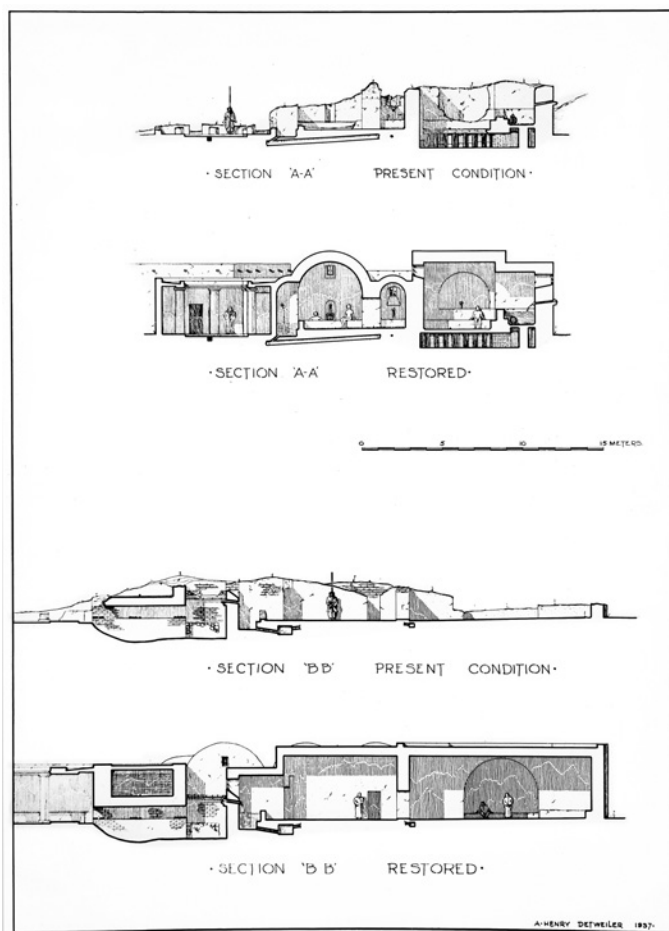


Fig. 5.30. Detweiler's elevations of the E3 bath.

plan being published by Pillet (*PR* 2, 18–19, pl. VI), with details of finds by Hopkins (*PR* 2, 18–19, 61–7). Pillet reported ‘only’ lamps, Roman rings, ‘a few coins and little toilet utensils’ (*PR* 2, 19). During the sixth season Brown continued exploration, digging more and resurveying as part of his account of the similar Roman baths in M7, E3, and C3 (*PR* 6, 84–105 and pl. IV; archive drawing Bath N12); E3 was middle in size of the three (*PR* 6, 84). Brown replaced Pillet’s alphabetic room labelling system with a mixed alphanumeric one. Archival photographic coverage was fairly extensive for these phases. Yale records attest further excavation of structures on the S side, including the drainage system. No textual account survives, but entries in the object registers place it in the ninth season. A series of unnumbered photographs preserved at Yale also attest this phase, as do plans and elevations by Detweiler dated 1937 (Fig. 5.30). These drawings effectively supersede the published accounts, as more complete. Further, observations on the ground confirmed that Brown’s presentation contained errors, especially with regard to water supply and drainage. Detweiler’s drawings kept Brown’s alphanumeric system, retained here with further adjustments.

Layout of the Bath Building

The building was laid out close to 45° to true N, but lies at a much slighter angle to the city grid. For the purposes of the following description local site N is taken to be perpendicular to the suite of hot rooms 2-3-C. It should be read in conjunction with the published accounts, containing details and dimensions which space precludes repeating.

The core comprised a five-room bathing suite in concrete, fully brick-faced within but stone rubble in hard cement with fired brick bonding courses to the outside, with brick hypocausts, arches, vaults, and floor tiles (Pls IX and X). The suite was found full of debris from the collapsed vaults (*PR* 6, 91). Traces of springing for concrete barrel vaults were still visible in 2010. Ancillary spaces were constructed against the E and S sides of this core block, in Durene mortared rubble and mud brick, presumably with flat roofs. Some of these rooms also had fired-brick flooring. The interior was generally plastered.

The main approach route was evidently from the W (Fig. 5.29), from the base’s central circulation area on 10th St, accessing via the small peristyle, E. S of this entryway lay a small lobby perhaps giving access to a latrine (below). Crossing the peristyle the visitor entered room E’, which had plaster benches all around except at its three doorways. One opened S onto what was probably a substantial *palaestra* associated with the bath, comprising the N half of block E4, discussed later. That at the NE corner led through to a long hall interpreted as the changing-room or *apodyterium* (A).

Room A was paved with fired brick, with a drain cover in the middle of the floor towards the S end, and lined by benches. Most were plastered rubble, but those at the S end were of large gypsum slabs which the excavators thought possibly reused from an earlier latrine structure (*PR* 6, 90). This room produced a mass of fallen painted plaster, including faces and a hand in black and ochre (Pl. XI; Fig. 5.31, h; *PR* 2, 18). The figures, one apparently female, appear to be mortals rather than mythical figures or deities, while another plaster fragment carries an apotropaic evil eye scene (Neg. B153). Apart from marble flooring reported in room 2, the bath interior produced no other trace of decorative embellishment; in contrast to the M7 and C3 baths, no mosaics were found.

Apodyterium A had three other doorways. One in its E wall led onto G St; this perhaps allowed regular access to the baths from the E, but could have been a service and maintenance door, normally kept locked. Another door led from A’s NW corner into *frigidarium* F, that in its N wall originally leading to room B.

As excavated, B constituted a large T-shaped room. It comprised a squarish area on the N side, surrounded by raised plaster benches and fronted by a wide pilastered portal, in front of which was a long rectangular space, offering effectively a square *ala* either side of the portal. The E *ala* was also lined with benches. B was apparently a covered



Fig. 5.31. a. Panorama of the E3 bath from the S in 2010, and archive images: b. room F from the E and c. from the W, showing the exposed flooring of an earlier bath on a different alignment; d. the W end of room 1, showing the plunge (back L) and walled-up passage to C (back R); e. the N side of room 2, showing *tubuli*, the apse, and collapsed floor with traces of marble slabs; f. room C looking W towards the apsidal pool; g. view from room 2, with N furnace flue bottom R, through door to room 3 and on to C; h. fragments of figural wall paintings from room A.

recreational space for socializing, including dining. The portalled alcove has two low, wide benches suitable for couches, and on the W side a higher, narrower seat, which backed onto the mass of masonry behind the heated apse of room 2. This wall acted as a radiator for B, which was perhaps especially for winter use. There was originally also a door from B directly into room 1. However, the archive plans indicate that on excavation the doors to both A and 1 were found walled up, with B only accessible from a doorway, apparently inferred rather than observed, in its S wall directly onto G St. No archive photograph shows this area, which in 2010 was completely obscured. However, in its final form, B appears no longer to have been an integral part of the *thermae* at all, but was an abutting, externally accessed social facility taking advantage of a free source of heat. A similar arrangement has been identified abutting bath C3.

However, this was not always so. The blocked doors of E3-B, an area of fired brick tiling which covers only part of its floor, and a stretch of foundation on its S side picked out by Detweiler as of different construction, combine to indicate that B was originally a much smaller rectangular space linking A and 1. At some stage it had been isolated by sealing the two original doors, greatly expanded into the recorded T-shape, and given separate external access for a completely new function.

As will be explained, this appears to have been done as part of a wider scheme affecting the street grid E of this point, one element of which was deliberate extension of E3-B to block G St. This also created a key set of archaeological relations. A ceramic-pipe water main, almost certainly the supply for the hydraulic system installed in the F3 bath fed from water-raising pumps at the N end of the city, had been laid along G St. Its excavated line diverted around the corner of E3-A, so it was laid after the angled bathing establishment was built. However, the main was in turn overlain by the extension of E3-B across G St. These observations provide an important link between the E3 and F3 bath sequences.

In its final form, the only access route into the bathing suite was from the NW corner of A into the E end of the long room identified by Brown as the main *frigidarium*, F. This was divided by a brick supporting arch across the centre, springing from projecting pilasters (PR 6, 91). The E half (Fig. 5.31, c) had benches on its S side, and a door into small ancillary room F' with tiled floor and benches all around. The flooring of F was again fired brick, but a large area of tiling revealed in its E half is curiously not on the alignment of the building (Figs 5.29 and 5.31, b and c). This has important implications (below).

The W half of *frigidarium* F accommodated two cold plunges with raised sides. The larger was rectangular, with three quarter-circle steps in its SE corner (Fig. 5.31, b). In each wall around the pool was an apsidal niche. On the S side of F was a smaller apsidal plunge. The external wall of this plunge jutted awkwardly into peristyle E, and was probably

a modification inserted into what was originally a door between F and E.

Each half of F had a door into the unheated room 1, which possessed another plunge in a narrow alcove at the W end, where there was also originally a small angled passage directly to C, on excavation found blocked at both ends (Fig. 5.31, d). This modification during the life of the facility changed its circulation pattern, leaving a single route through the suite via the door at the E end of room 1 leading to the apsidal room 2.

Room 2 was a hot room, directly adjacent to the N *prae-furnium* and entirely faced with *tubuli* except on its S wall (Fig. 5.31, e). Its floor was paved with marble slabs, fragments surviving at excavation, and had at least one glazed window, as shards of glass were recovered (PR 2, 64). The apse floor was raised, which Brown suggested was for a 'portable *labrum*' (PR 6, 94). Perhaps more likely 2 was, in contrast to C, a hot dry room, *laconicum*, and the apse accommodated wooden benches. An axial door in the W wall led into 3 (Fig. 5.31, g), midway between the two *prae-furnia* and so another hot room, with *tubuli* on all four walls. This in turn led through another door on the same central axis to room C.

The main *caldarium*, C, was a rectangular room with two raised-sided pools, rectangular on the N, and apsidal to the W, both close to the NW *prae-furnium* (Fig. 5.31, f). The pools were heated both from the hypocausts beneath them, and via covered extensions allowing water to circulate over the hottest part of the flue. The room had *tubuli* up its E and S walls, and on both sides of the N pool.

The various archive plans show enigmatic structures at the W end of the heated block between the NW furnace structure and reservoir R1. However, the drawings are mutually contradictory, and it was not possible to make sense of the area in 2005–10 without extensive digging.

The Heating System: Praefurnia, Hypocausts, and Tubuli

The hypocaust system, built mostly from round bricks stacked in *pilae* over a metre tall (PR 6, 93), was still in part to be seen in 2010, but much of the interior was obscured by debris. It was recorded in most detail by Detweiler, who produced a plan of the sub-floor structures (Fig. 5.32, L). It ran under the floors of rooms C, 3, and 2, the hot gasses coming from two furnaces, the larger at the NW corner behind the *caldarium* pools, the other on the N side of room 2. In 2010 the latter was completely obscured by material washed down from the adjacent ash mound. The NW *prae-furnium* (PR 6, pl. XV.3) was distinctly angled with respect to the bath, for reasons discussed later. Its flue split, running immediately under small arched extensions from each the *caldarium* pool. Brown suggested these originally held *testudines alvei*, metal water heaters (PR 6, 93–4), but there was no clear indication on the ground that these had ever been more

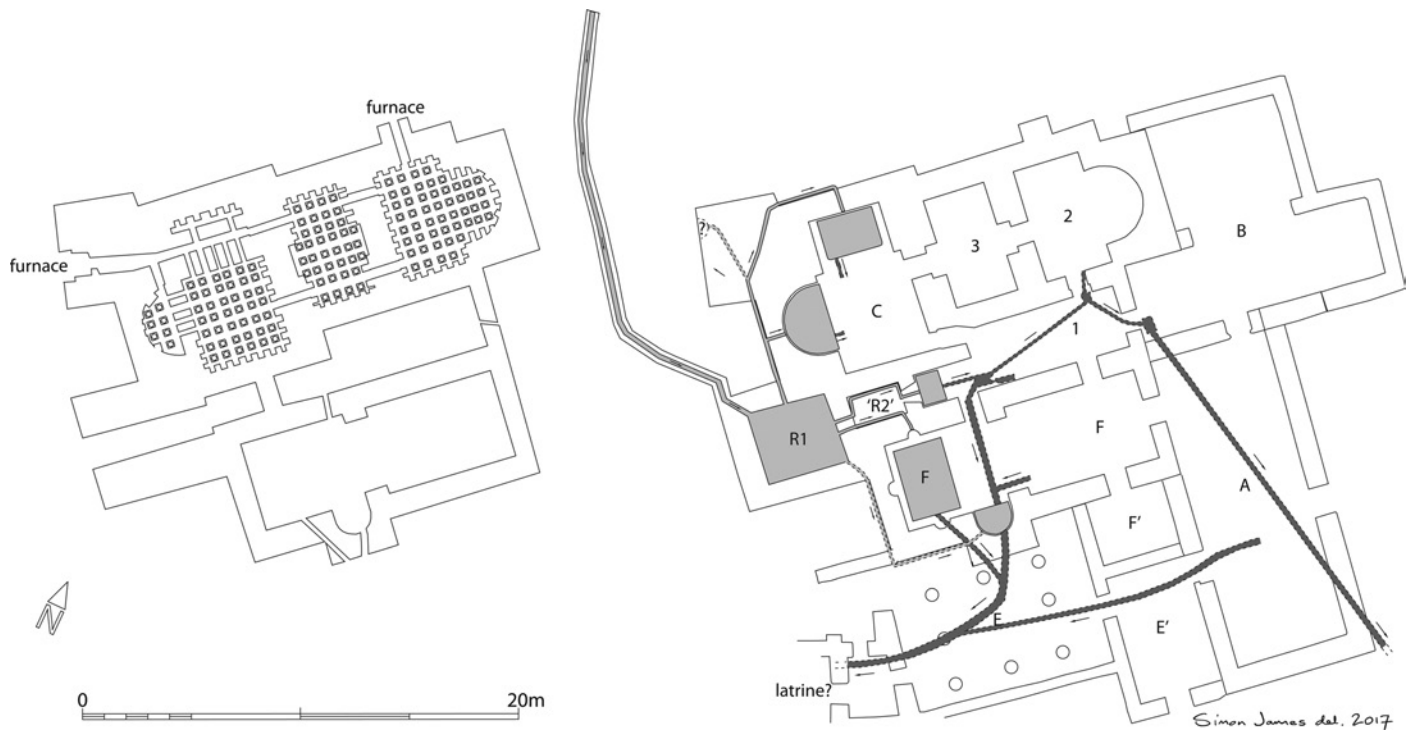


Fig. 5.32. L, plan of the E3 bath hypocaust system and R, the water supply/drainage system, based on Detweiler's 1937 drawings, plus direct observations and TS survey points. In this scheme, Detweiler appears here to have conflated two separate and successive drain systems.

than plaster-lined brick. The right branch of the flue ran under the suspended apsidal pool, the other more directly under the larger rectangular pool, where the *pilae* were enlarged to take the weight. Both branches connected with the hypocaust beneath the floor of C. Gasses could flow through to the hypocaust beneath 2 via two flues, and connected with that under 3 in the same way. The last, however, was heated directly from the N *praefurnium*. Gasses were carried up the walls through brick *tubuli* covered in plaster, which made the walls radiating surfaces too. No information is available regarding smoke venting arrangements at roof-vault level.

Ashes from the hypocaust system were simply dumped in a great pile on the N side of the bath. In 2010 they still stood over 2m above surrounding ground level. This mass, combined with the tough upstanding concrete of the bathing suite, created the prominence which initially attracted the excavators.

Water Supply to the Building: The Aqueduct

The bath had an elaborate hydraulic system documented by Detweiler (Fig. 5.32, R). It was fed by an aqueduct carried on rubble-built piers from the N city wall along the W side of block E3, following the line of F St to the W end of the bath house (Figs 5.5 and 5.33). Discovered and excavated in the second season when the bath was first dug, initially the 'row of pillars' was not recognized for what it was (PR 2, 18, 66). Only the pier bases survived *in situ*, although a fragment of

fallen superstructure was identified and excavated in 2010, proving to be the fallen upper part of the adjacent pier (Fig. 5.33). It terminated in a course of brick, with the bedding for a second, apparently slightly angled. This suggests that the piers had carried brick arches to support the channelled or piped water supply, but otherwise this superstructure appears subsequently to have been robbed.

The position of the last pier shows that the aqueduct debouched into the NW corner of a large squarish reservoir, built on a vaulted concrete foundation at the SW corner of the main bath block. The floor and parts of the sides of this tank, which Brown called R1, still existed in 2010.

Water Feeds around the Building

In his republication of the bath, Brown convinced himself that it actually had two other elevated reservoirs, one on the N side of R1 behind the *caldarium*'s apsidal pool which he labelled 'R', and the third, which he called 'R2', on the E side of R1 (PR 6, 94, and pl. IV where they are mislabelled R, R2, and R3). However, although Brown reported supposed traces of vault springing and hydraulic plaster lining for R2 in particular, neither of these other spaces possessed the expected further concrete vault beneath, and 'area R', especially, also lacks the necessary masonry substructure. I here follow Detweiler's later plans in retaining Brown's space labels, but eliminate his spurious extra reservoirs (Fig. 5.32, R).



Fig. 5.33. N corner of the E3 aqueduct, with detail of tumbled superstructure showing tile course and bedding for another on what had been its upper surface.

Pipes led from R1 to the pools in the W rooms of the main block. Brown describes a feed to C's apsidal pool in obscure and confused terms, as an outlet from the 'NW corner' of R1 debouching on the 'E side' of the apsidal pool, where a stretch of lead pipe was *in situ*. Rather the outlet was at the middle of the N side of R1, and led along a brick ledge on the outside of the W wall of the room C apse, to two or possibly three outlets. The first passed through the wall on the axis of the apsidal pool, a cast shape in the concrete still attesting the position of Brown's lead pipe in 2010. This poured unheated water into the pool, the resultant 'shower' likely being part of the amenity. Detweiler's plan shows another brick ledge on the N side of the building, consistent with piping continuing around the exterior of the block to a similar inlet (not visible in 2010) supplying the rectangular pool. It is possible that the N outlet pipe(s) also had a further, external destination (below).

From the E side of R1 led two further outlets. One led along another projecting brick ledge around the N side of 'R2'—apparently open to the sky—to the small plunge in

room 1. Brown reported 'terracotta piping' on this line (PR 6, 94). The other led along the S-side brick ledge of 'R2' to a downward-sloping aperture through the wall of the main block, emerging at the top of the N apsidal niche of the large *frigidarium* pool. In 2010 the niche survived to almost its full height, preserving the water supply aperture, perhaps delivered as a fountain flowing from a small sculpture in the niche, creating a further 'shower'.

Detweiler's hydraulic plan showed one further outlet, from the reservoir's SE corner, leading around the W and S exteriors of room F, he thought to provide similar feeds into the other two apses of the big pool, and to fill the small apsidal pool on the S side. Except perhaps for the relevant corner outlet from R1, no trace of this system can have been directly observed by Detweiler, because at excavation the walls were already eroded below its presumed level, so this part of his system is inference. A pipe on this route to fill of the small pool is reasonable, but it is unlikely that the big pool boasted three inlets. The reservoir, and the pumping system which fed it, were of limited capacity.

Roadside Shrine?

The NW *prae-furnium* is surrounded by an especially large mass of masonry, which also projects N of the building. There is no need for any massive buttress at this point, so what was its purpose? It is now ruinous and partly submerged by wash from the ash-mound, but lying nearby in 2010 was a large piece of concrete which looked to form the half-dome part of a shallow apsidal niche (Fig. 5.34). This is now out of context, but it is suggested that it came from the adjacent, unexplained mass of masonry on the corner of the bath building. Might this have been a small street-side shrine? Behind the aqueduct and between stokehole and ash-heap might seem an incongruous place, but deities were celebrated everywhere at Dura, and the baths and water supply might seem especially worthy of religious attention; and this spot would have been visible to all passing up F St. A niche here might have offered another refinement, or perhaps primary function. The fallen fragment, albeit battered, preserves traces of what may be an axial aperture at the bottom of the doming, which in form is reminiscent of the arrangement for supplying water to the niche by the larger *frigidarium* pool. Perhaps the N outlet from R1 also supplied a pipe running to this putative external shrine, maybe a small *Nymphaeum* providing a subsidiary water supply to the neighbourhood.

Drainage System

According to Detweiler, the drainage system (Fig. 5.32, R) generally ran S from the heated block and from A and E' to court E, and then W along the N edge of block E4. As was still visible in 2010, the two *caldarium* pools drained onto the central floor area of C. The water had to be kept above the



Fig. 5.34. Fragment of niche which may have been part of the structure surrounding the NW *praefurnium* (centre) of the E3 bath.

hypocaust system, and so when the pools were emptied it flowed across the floors of rooms 3 and 2 to a drain at the edge of the under-floor system, at the doorway between 1 and 2 (PR 6, 95). Here it was apparently joined by a short drain from the corner of room B by its blocked door with 1. The under-floor channel then passed diagonally towards the W door of 1, connecting with a drain from the small plunge, then ran under the doorway, and straight across *frigidarium* F and under the small apsidal plunge (probably originally also a doorway). It then swung W across peristyle E, where it was joined first by a separate channel from the large *frigidarium* pool, and then by another from the S end of *apodyterium* A, via room E'.

Detweiler's hydraulic plan also includes another drainage channel running diagonally under A and out into 10th St. Brown first described this E channel (PR 6, 94–5). Then unaware of the W drainage system, he considered it the sole drain for the bath. In his plan, which shows the drain's course out of the building, he also reasonably inferred connection with the channels in Room 1. Detweiler followed Brown in this. However the E channel seems redundant given the discoveries of a larger and more coherent W-flowing system: indeed, Detweiler shows water flowing in two directions from the door 1-2 drain, W and E, which makes no sense. The proposed explanation is that the E drain did not, in fact,

connect with the W drainage system, but was a relic of another, earlier structure (below).

No latrine facilities were identified in the building, but some are expected close by. The main drain runs W under the small lobby room at the SW corner of the peristyle. The W door of this likely led into a latrine, conveniently accessible from the bath or directly from 10th street, and situated on the N side of the putative E4 *palaestra* area (below). Bath outflow would help flush it (although where to remains moot). This separate location parallels arrangements in the late-phase F3 bath (F3-29: PR 6, 56, 71).

palaestra in E4

The E3 bath was entered from the W, from 10th St, its ancillary spaces laying mostly on the S side of the bathing suite. Through room E' it also provided access into the area comprising the N half of block E4. It is proposed that, as tentatively suggested by the excavators (PR 6, 4), this area constituted a *palaestra*, at least in the final form of the bathing establishment (Fig. 5.35).

A bath like that in E3 might be expected to possess a substantial *palaestra* for exercise, games, and socializing, like those inferred on the N side of the F3 bath and the S side of C3

facility, although M7 seems to have lacked one. E3's could not have lain N of the heated suite, an ash-filled yard with no direct access from the building. To the S, the N half of E4 has been little excavated, because the Ottoman road/modern access track run across it. However, a number of indicators support identification of a *palaestra* here. The S half of E4 was occupied by a single large house, but at least during the last decades of the city's existence the N half, though apparently walled around, seems to have been largely open ground.

To define the block, the excavators exposed E4's street frontages in the usual way. N of the large house, Detweiler plotted three doorways on the W, F St frontage, indicating that originally E4 had been fully built up with civil housing. However, the E3 bath complex overlies the position of E4's 10th St frontage. Magnetometry showed a notably blank area within the N part of the block, in clear contrast to the patterns of walls visible in flanking blocks E6 and E2. This suggests pre-existing buildings were demolished to ground level, except their W street facade walls. The area was also enclosed on the E side by a new rubble-built boundary wall, running from the E4 house to the S wall of *apodyterium* E3-A (PR 6, 30). We seem to have, then, an enclosed open area in the N half of E4, accessed from the E3 bath and perhaps the old street doorways on the W side, consistent with a *palaestra*.

The E3 bath is therefore better thought of as the core of an E3-E4 bathing complex, similar in scale to, and in layout a mirror image of, the *palaestra*, bath, and service yard complex in block F3 to the S (Fig. 5.35).

Orientation of the Bath Block

Two of the most obvious features of the E3 bath are that it obstructs 10th and G Sts, and that it lies at a marked and hitherto unexplained angle to the street grid. The amphitheatre in F3 is rotated off-grid to an extent similar, if opposite, to that of the E3 bath, but other baths in F3, C3, and M7 conform to the urban grid. This suggests some local reason for E3's eccentricity, in the way that the Roman Palace bath was orientated with respect to the river cliff edge.

The 1936 vertical air photography shows two features relevant to this question (Fig. 1.12). One is a fairly clear street-width parch-mark, running from the E end of the bath and the line of G St straight towards the re-entrant corner of the N city defences. It seems G St N of 10th Street deviated W from its grid line, to head directly for the wall re-entrant. The irregular course of the city defences following the lip of the N wadi distorted the adjacent street grid across several blocks N of 10th St. The other feature, visible in an undocumented trial trench N of the bath, is a stretch of wall on the same orientation as, and on the W side of, the G St parch-mark. This wall is also on the line of one of the N-S walls of E3 bath room B (Fig. 5.5).

These observations explain the mysterious orientation of the E3 bath: an orthogonal building had to be fitted into a non-orthogonal site. It was aligned on the off-grid course of G St because, it is suggested, this was already an established

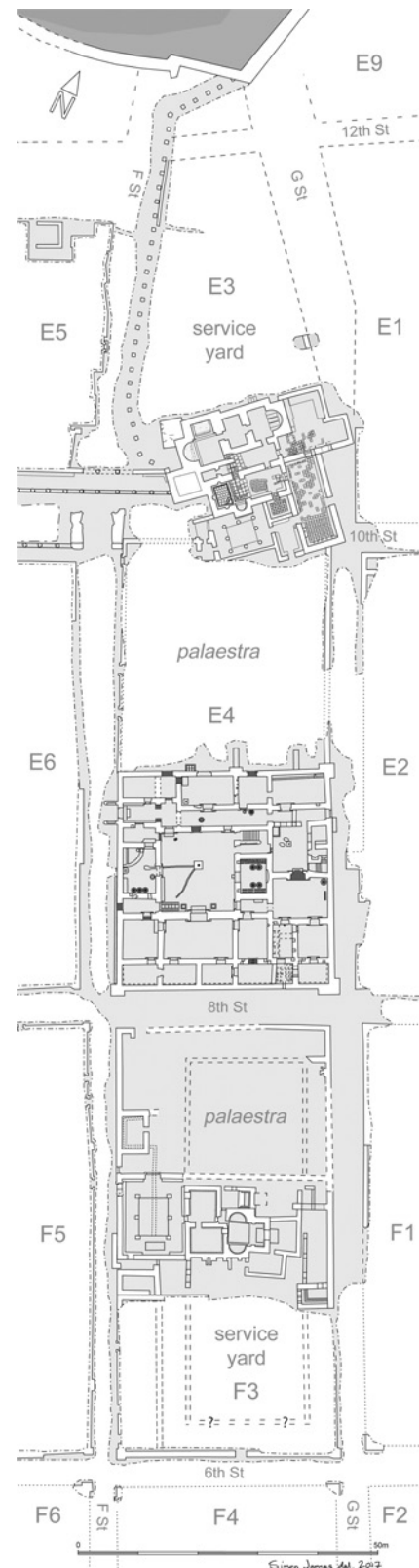


Fig. 5.35. The E side of the NW plateau base enclosure, as it was AD c.212 before the amphitheatre replaced the F3 bath. It comprised two bathing establishments, each with a *palaestra* on one side and service yard with fuel store and ash-dump on the other, mirror-imaged either side of the large E4 house.

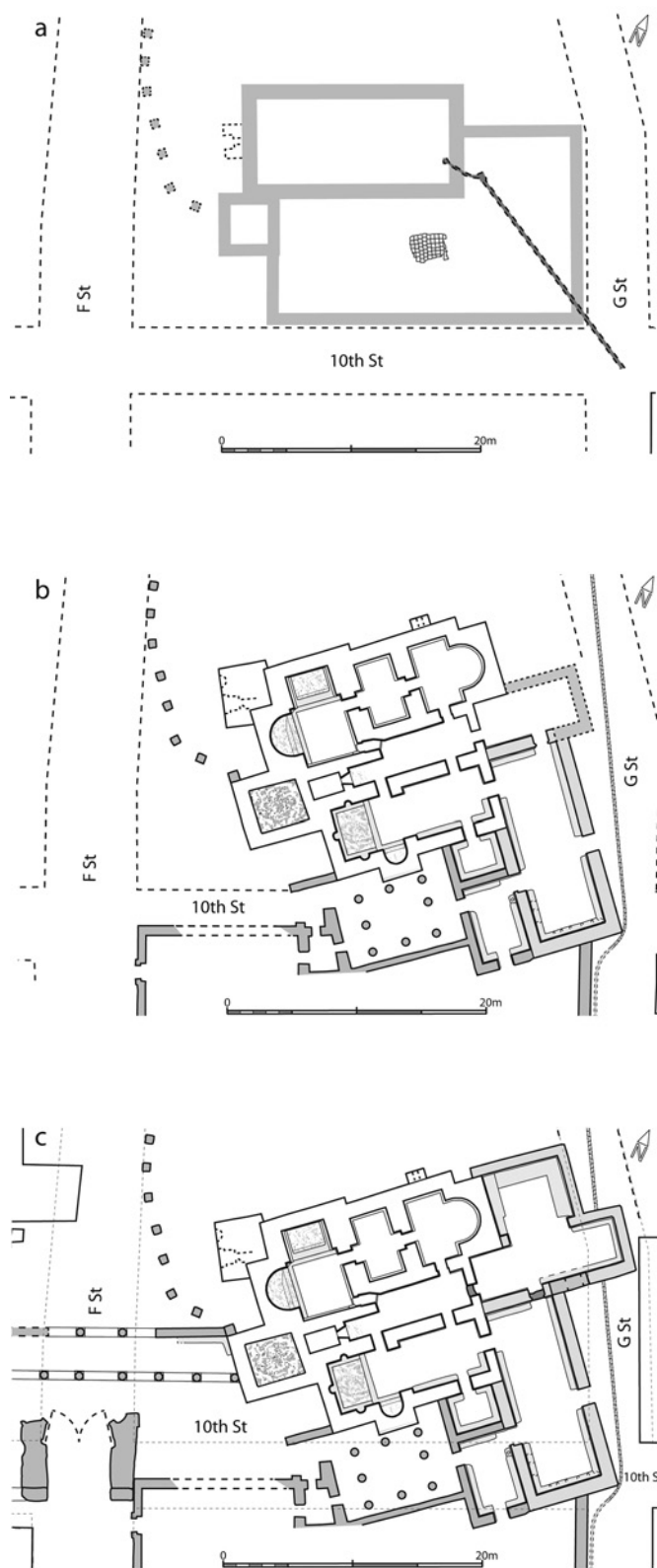


Fig. 5.36. The development of the E3/E4 bath complex: a. approximate arrangement of small initial establishment on the city grid alignment; b. the later, larger, angled bath house blocking 10th St with aqueduct, and *palaestra* in E4. The water main along D St

street frontage and because, at the time, the bath's location served a secondary purpose: its E wall was to form an integral part of a continuous walled boundary which (except for a minor gate on the diverted line of 12th St and single doorways to the bath and the E4 house) ran unbroken down the W side of G St all the way to the main E–W access route on 8th St. It thereby blocked E–W movement along 10th St, but at this stage without closing G St to S–N traffic. As will be seen, this formed part of a military perimeter line.

An Earlier Bath in E3

In addition to its odd overall orientation, the visible and recorded remains of the E3 bath exhibit some unexplained internal features. The floor of room F includes an extensive patch of fired brick tiling at an odd angle to the rest of the flooring, and to the room and building as a whole. It also looks in archive photos to be at a lower level than the rest of the flooring, representing an earlier phase of Roman-style construction perhaps revealed by robbing (Fig. 5.31, b and c). Significantly, unlike the upstanding bath, this tiling is on the city grid orientation. Secondly, the NW *prae-furnium* is likewise at an angle to the bath block, for no obvious reason; but its alignment also roughly corresponds to the city grid. Then there is the mysterious drain line under room A which, flowing SE from the area where the main bath block lies, makes no sense in relation to the coherent W-flowing drainage system of the upstanding building traced by Detweiler. And finally, there are the slab seats in the S end of A, which the excavators thought could have been reused from an earlier latrine.

In combination, these clues indicate that the extant structure was not the first Roman bath to stand on the site. There had been a previous, smaller, brick and concrete bath occupying the S end of E3, conforming to the city street orientation and obstructing neither 10th nor G St. This early bath was demolished and overbuilt by the larger, angled establishment.

Sequence and Chronology

Orientation of the NW *prae-furnium* of the E3 bath and of early tile flooring exposed in E3-F, plus the E-running drain under E3-A and other clues indicate a hitherto-unsuspected grid-aligned bath (Fig. 5.36, a) preceding the larger, angled establishment (Fig. 5.36, b). Widened 10th St's N colonnade was subsequently built against the angled bath building (Fig. 5.36, c). The colonnade was constructed with the *principia*, epigraphically dated to c.211. Both the first and second E3 bath buildings antedate this phase. Further, the second bath's relations with the G St piped water main help relate it also to the F3 bath sequence. These issues are examined in Part III, where it is proposed that E3 and the similar baths in

was then laid around this larger complex, before: c. room E3-B was extended over it, blocking G St as well. On the W, 10th St was widened and its N colonnade built up against bath and aqueduct.

C3 and M7 were built considerably before the building campaign of the 210s.

THE GREAT E4 HOUSE: FROM HQ TO DEFENSIVE STRONGPOINT

Excavation and Publication

The N half of block E4 had been at least partly built up with civil housing before the area was demolished to create a *palaestra* for the E3 bath (above). The S half was occupied by a single especially large house (Figs 5.37, 5.38, and 5.39). It was dug by Brown in the sixth season, with published account by Margaret Crosby (PR 6, 4–48). Brown's notes survive. The following should be read in conjunction with Baird's discussion (Baird 2014, 131–7).

Reinterpretation: Not Pseudo-Barracks

The excavators interpreted the remains of the E4 house as attesting a single original build, followed by three identified phases of modifications: some occurring while still a civilian house; numerous minor and moderate changes thought to represent a single episode of conversion immediately following take-over by the garrison; and subsequent further modifications representing another general change in usage during the military period. The Yale team saw this building as multi-functional in military hands, initially accommodating ordinary soldiers, speculated to comprise a century of auxiliaries of *cohors II Ulpia*, sharing the building with their centurion—analogue to a conventional European barrack block (PR 6, 28–9). E4 has since been cited as an example of conversion of Dura's civil housing to such pseudo-barracks (e.g. Haynes 2013, 166–9; Baird 2014, 134). However, a review suggests that the building probably did not house ordinary soldiers at all, except for a final transitory episode.

The excavators' grouping together of various individual changes—especially blockings of doors and creation of new ones—into distinct episodes is largely plausible, based on the logic of interconnecting and separating spaces, and to some extent similarities and differences in materials and techniques. There is less control on the chronology. Nevertheless, if the original account is overconfident in its assertions, the overall archaeological narrative still fits the evidence well, with one important exception.

The idea that E4 was used as ordinary soldiers' housing was largely on the basis of the portable personal and domestic artefacts found in its rooms. However, the portable finds likely mostly represent potentially very different occupation of the building during the final years of the city, and so may tell us little about its prior usage. This may be why 'every room in the house produced at least one scale of bronze [armour]' (PR 6, 28; Baird 2014, 136), yet there were no equestrian accoutrements in the stables (PR 6, 30). I suggest

at least three if not four distinguishable phases of military use of the structure: two marked mainly by structural alterations and relatively long lasting (measured in decades), and one or two much more transient, marked by the portable artefacts.

The proposed third phase comprised a brief episode of occupation probably by soldiers and their dependants during preparations for the siege, and marked by deposition of most of the personal accoutrements listed by Baird (2014, 136). This episode might be distinguishable from a final 'battlefield deposit' of fragments of armour and personal weapons, plus three stone artillery projectiles from stairwell 27 (Baird 2014, 136). These perhaps derived from use of the building as a blockhouse with small artillery pieces on its roof, during street fighting as the city fell. The portable artefacts, then, may tell us almost nothing about the use of the building between Roman annexation and the early 250s. Evidence attesting those decades, comprising details of the building's structure, decoration, fixtures, heavy artefacts (*dolia*, mills), and many of its graffiti, plus a consideration of the location of the building, point to multiple usages other than as 'pseudo-barracks'.

Description: The Civilian House

For full details of the civilian house, see PR 6, 5–18, and Baird 2014, 131–7. Originally one unusually large courtyard residence, it was not the first house on the site, overlying earlier foundations (PR 6, 4; Baird 2014, 134). It had apparently already stood long enough to have undergone modifications before Roman annexation.

It was both unusually large and regular in plan, a square c.36.5m on a side, the mortared rubble foundations for the mud-brick superstructure built up to c.2m (PR 6, 5–6). It was also substantially or wholly a two-storey building, almost certainly from the Parthian period, although there is a possibility that the upper storey was partly a creation of the Roman era (Baird 2014, 135). The original main entrance was thought not to have given directly onto F or G Sts, but led from room 7' near F St onto an alley 'apparently' running across the N of the block, supposedly separating it from the rest of E4 (PR 6, 5–6). This seems erroneous. Photographs indicate that only narrow trenching was conducted outside the N wall of the house. Detweiler's survey plan shows a continuous F St frontage wall from the corner of the building N to 10th St, pierced with more house doorways. The 'alley' surface may actually have been paving of the inferred E3 bath *palaestra*, or perhaps a new courtyard serving E4, for the stables entered through the late door into 13. The two 'low walls' built against the N wall of E4 (PR 6, 23) may have been relict mortared footings of other demolished houses. The N doors from the great house perhaps originally communicated directly with further, smaller courtyard houses in a manner commonly seen at Dura. On present evidence it is probable that the main entrance to the house was always through room 5, but that extensive military modifications misled the excavators into thinking it was a new creation.

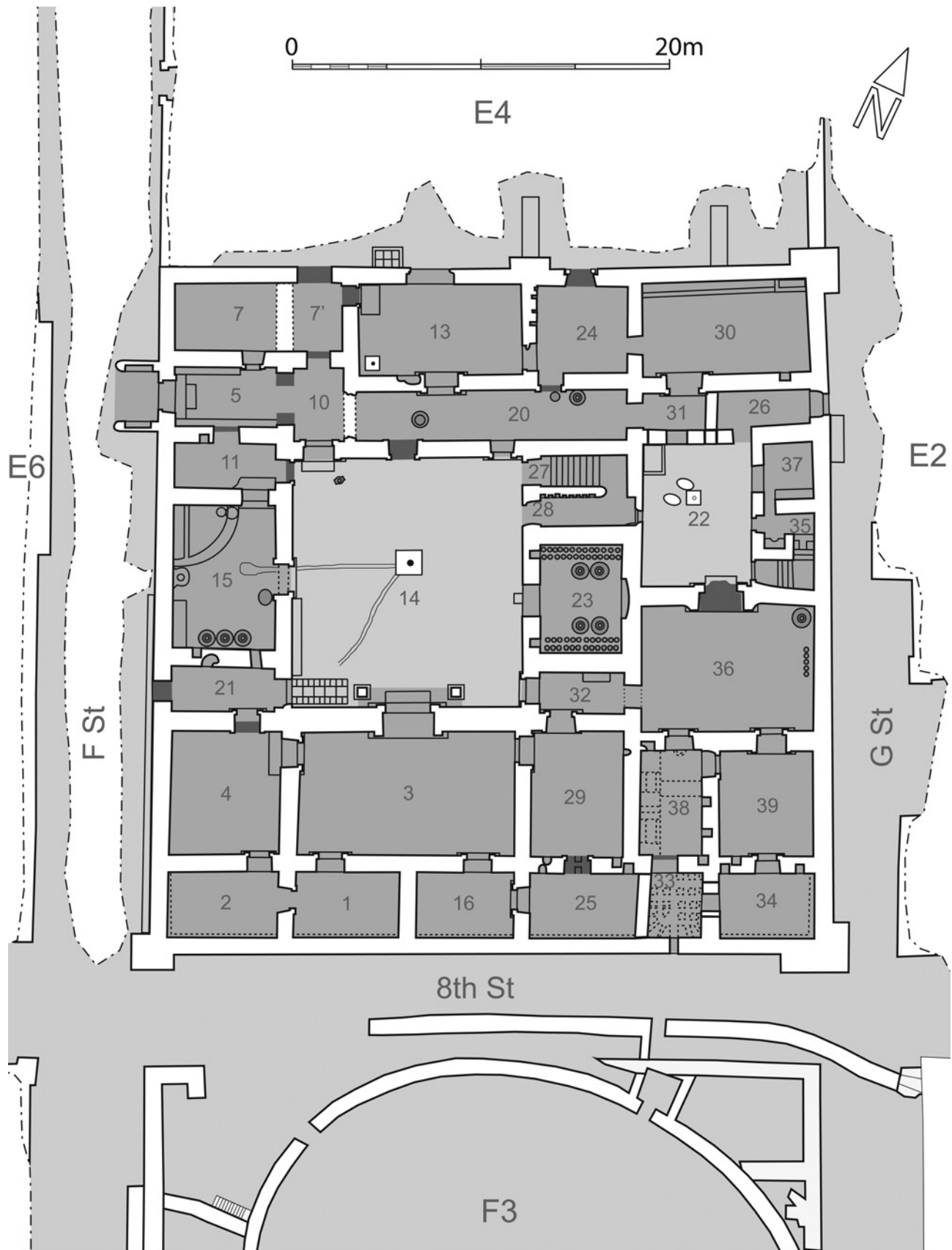


Fig. 5.37. Plan of the E4 house after Baird's drawing, Knox's published plan, and Detweiler's survey. (With thanks to Jennifer Baird.) The darker grey connotes roofed spaces around the two open courts.

This presumed entrance led through 5 and 10 (Fig. 5.38, a), following the usual Durene indirect route, to the great court of the house (14: Fig. 5.38, b). Off this ran a stair (27) with latrine beneath (28), and a room with ovens regarded as a kitchen (15). This had a drain leading to the mouth of the court's central cistern, described as a 'latrine-cesspool'—an Orientalist misreading of a central cistern designed to store rainwater from the roof. A second drain 'from the area in front of the door to vestibule 21' (PR 6, 7) also fed this.

The large principal room (3) was, as commonly at Dura, on the shady S side of court 14, and led into a complex of rooms. Another major N-facing room (36) lay on the S side of secondary court 22 which had a second cistern and its own stair (35). Court 22 was close to the E entrance onto G St (26).

This house had at least a partial upper floor, evidenced by the two staircases and by fallen painted plaster and 'mosaic' fragments (actually unpatterned pebble flooring, but unique in a Durene house: Fig. 5.38, c), found in collapse debris 1–1.5m above the floor of room 24 (PR 6, 15). About 1m above the floor of court 22 were found window glass fragments, thought to come from glazed second-storey windows overlooking the court (PR 6, 15). Both flooring and glass may attest Roman modifications of a pre-existing upper storey. This upper floor seems to have covered the E half of the site, and probably the S range as well, indicated by the corner buttressing and external reinforcement of the S part of the W wall. Room 24 survived to 3.1m on excavation, with no sign of the ceiling. The two staircases indicated a ground floor of 5m elevation (PR 6, 10, 16). The E4 house likely stood 8–10m tall.

Some modifications to the house the excavators believed were executed before the Roman takeover, i.e. doorways sealed by removing lintels and blocking with stones and plastering (e.g. 7'–13, and the external door to 21: PR 6, 19). Then the building underwent radical reorganization (PR 6, 19–28). 'The complex changes to the house bespeak ruthless conversion to a specific kind of utility. In general, its character as a family dwelling is suppressed... the whole is split in isolated single rooms or groups of two or three rooms' (PR 6, 28). This marked the military takeover.

Conversion to Military Use

According to the excavators (but see doubts above), on taking over the house the military shifted its main entrance from N to W, directly onto F St through a new door from room 5, with a projecting entrance structure comprising 'rubble benches with high backs, terminating in rubble Tuscan half-columns' indicating it was roofed (PR 6, 19). Internally, 'the complete conversion of the house was accomplished without violence by the simple expedient of blocking old doors and cutting new ones. One old partition wall was razed and two new ones constructed' (PR 6, 19). Rooms 7 and 7' became a single space through demolishing the wall between. Circulation routes were extensively modified, notably by removing

the walls separating 10, 20, and 31, creating a new long axis from street door 5. A new wall was built further E, separating the E entry from 31 by creating the new 26. These modifications changed the communication of the large door from 30 to 31, creating a new, repurposed block of rooms, 13/24/30, connected together but also largely isolated from the rest of the house by corridor 20/31. Here room 13 received a new, wide external door in its N wall, with a horse-trough just outside (PR 6, 23). 24, already connecting with 13, got a new doorway to 30. Rooms 13 and 30 were given rough flagging floors, 30 also acquiring mangers. The modified suite 13/24/30 clearly comprised stables; a graffito of horses was found on door 30–31 (PR 6, 22–4, 28). The wide doorways allowed a route viable for horses from outside the building via 13 and 20/31 to 30; the narrow doorways of 24 between suggest a tack room and perhaps fodder store. Supposedly at this time 24's external door was also altered (PR 6, 23), but its subsequent sealing may actually belong to this time.

Blocking of a number of other doorways is also reasonably ascribed to this episode, because it was achieved in ways novel to Dura. Notably the great door 22–36 was sealed with Roman fired bipedal bricks (Baird 2014, 134; Fig. 5.39, c). This was a fundamental reorientation of communications in the E side of the house, dividing court 22 from the former major room 36 and its dependencies in the SE corner. Other doorways blocked with fired or mud brick (fully, or with screen walls turning them into niches) included 7–10, 20–24, 11–14 (converted into a 'window' with a low wall, bench, or table surface: see below) and 29–25 (Baird 2014, 135).

Around court 14, 'the kitchen [15] is remodelled to supply edibles in large quantity', with a huge new oven in one corner and a new bread oven (PR 6, 20, 28), while in the adjacent 11 was found a graffito representing a cook's account or programme of sacred meals (PR 6, 35, no. 612; Baird 2014, 136–7). The low 'wall' installed to divide 11 from court 14 could have acted as a serving surface for food prepared in 15 and 11. This large-scale cooking facility is to be associated with remains of two basalt grinding mills, at least one hourglass-shaped, found in the court outside (Baird 2014, 134). The original latrine in 28 was also abolished (PR 6, 22), and replaced by 'an installation in E4–28, which might have been an oil press' (Baird 2014, 134).

Especially interesting is 23, a symmetrical space almost axial to the main court, with a wide shallow niche in its back wall. This wall received extensive fine paintings, fragmentary except for partial survival of what is almost certainly a military sacrifice scene (Fig. 5.38, e) resembling the Terentius painting from the Temple of Bêl (PR 6, 21: Pl. I), and indeed another in E7–14, in the Temple of Azzanthkona military administrative compound (Fig. 5.10). A 'calendar scratched beside the panel of the sacrificant... was in Latin [no. 622]' (PR 6, 28). Other paintings in this room depicted planetary deities, and an acclamation to Serapis was also found (PR 6, 45–6, no. 623; Baird 2014, 137). We will return to this apparent shrine room below.

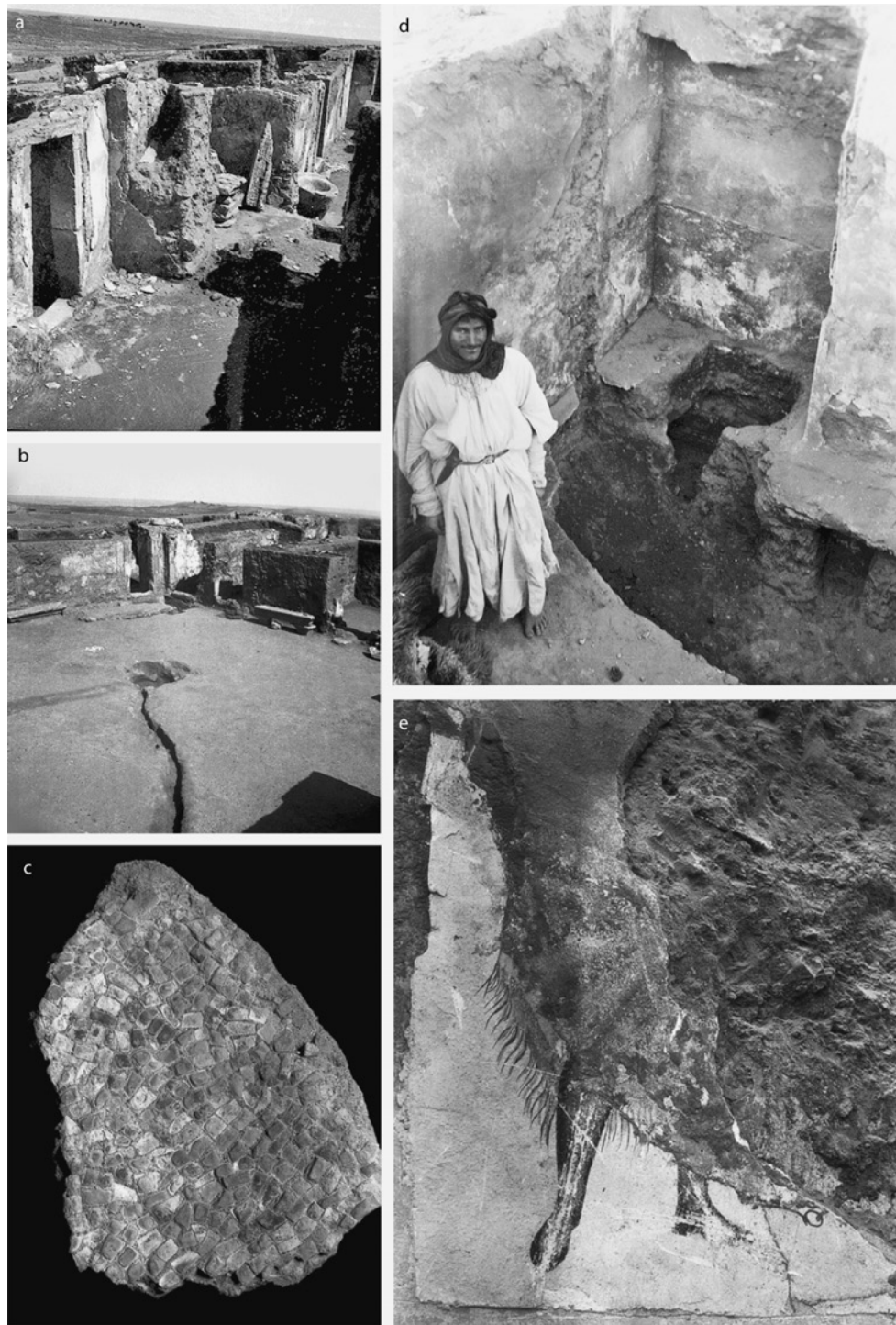


Fig. 5.38. The E4 house on excavation: a. the view from lobby 5 to corridor 20 (note the 'cooler'), with the stable block in the background; b. court 14 looking NE, with drains into central cistern, exposed earlier foundation at back edge of court, and entrance to 23 (right); c. a fragment of pebble 'mosaic' flooring fallen from the upper storey (scale unknown); d. room 33 from the SE, with hypocaust and painted décor; e. E4-23 fragmentary painting, probably of a military sacrifice, room 23 (reproduced retrograde in *PR* 6, pl. XL, 4).



Fig. 5.39. a. View of E4 from the SW in 2010. b. door 32-29 with niche in S wall. c. Blocking of door 22/36 with Roman fired bricks, seen from the S.

Alongside sealing up of the grand room 36's N door to court 22, partitioning of the E end of 25 to form the new small 33 greatly reduced access to the SE rooms of the house, now only accessible through room 32. A major innovation in this newly defined suite was construction of a small hypocaust in the new 33, with *tubuli* only in the S wall, and a stokehole in 8th St to the S (PR 6, 24; Fig. 5.38, d). This, now separated from 38 by a screen wall and accessed only from 34 via a narrowed doorway, was interpreted as a small private bath (PR 6, 28), although Baird sees it as simply a heated room (Baird 2014, 134). Either way it remains a unique domestic luxury for Dura where winter temperatures can reach freezing. Room 33 had two plaster coats, the second with painted decoration (PR 6, 25–7). This privileged SE corner suite was probably, as the excavators thought, officer's accommodation adjacent to apparent shrine 23. It also produced the only other Latin text from the building, on the S wall of room 39, thought to be part of a quote from the *Aeneid* (PR 6, 48, no. 628; Baird 2014, 137).

Apart from loss of the end of 25, the great principal room 3 and its dependencies remained largely unmodified except for increased isolation by blocking doors 4/21 and 25/29. This created two suites, each only accessible through room 3: 1/2/4 and 16/25. It may be significant that the doorways of 29 also oversaw anyone entering room 3 or 32 into the SE suite.

Modifications during the Military Phase

The military phase saw further modifications and changes of room function. 'The old outer door of room 24 was finally blocked... Room 23, shorn of its glory, became a storeroom. Its paintings were covered by a fresh coat of plaster. Along its north and south walls were two rows of thirteen *amphorae* each, 52 in all... four great *dolia*... stood, two on either side of the room' (PR 6, 29). Room 36 was also apparently used as a store in the last stages, containing large storage vessels (PR 6, 27). The hypocaust in 33 'went out of use. Its furnace pit in the south street was filled in and paved over' (PR 6, 30). The excavators saw these changes as indicating another substantial shift in usage of the building. They also proposed dates and historical contexts for the two identified phases of military use of the E4 house.

Revised Phasing and Interpretation

While we are most likely looking at two distinct military phases before the final siege, the evidence indicates a different reading of the sequence of changes and their meanings from that offered by the excavators. At some stage in the military period, Rooms 23 and 36 were converted from prestigious usage to storage. It makes much better sense to see these and other changes in and around court 14 as all attesting a single profound change to the functioning of the building. Rather than being part of the initial military conversion, installation of

the large production capacity in 'kitchen' 15 probably belonged to this later phase (so Baird 2014, 134), as did installation of the basalt mills found in court 14, the oil press in 28 (if correctly interpreted), and perhaps also the storage bins in court 22 (Baird 2014, 134). These together constitute a later 'industrial' phase of usage of at least the ground floor of E4.

The first phase included the elaborate wall decoration of room 23, the suite with heated room plus probably the stable block and not least the elaborated F St entrance at room 5. In this period the functions of E4 clearly included high-status residential accommodation comparable with, and indeed in some ways outclassing the J1-A 'House of the Prefect': like the latter, E4 had multiple suites of good-sized rooms, facilities for horses, plus a unique heated room. Such facilities suggest that this was the residence of a contingent commander: a senior centurion or equestrian officer.

The entrance to the suite with heated room was next to the door to 23 with its exceptional paintings. The excavators argued that 'Room 23 will also have been the centurion's quarters, or a *sacellum* for the cult of the emperor or some military deity. The paintings on its walls no doubt depict him, or his superior officer, in the act of sacrificing to protect deities, in the presence of his men and the deities themselves, as in the tribune fresco' (PR 6, 29). It seems very likely that 23 was indeed a military shrine. It is also almost axial to the court 14, offering a reasonable space for ceremonies such as the sacrifice apparently depicted. This arrangement should be seen in conjunction with another important feature of the building: the main entrance porch on F St. This looks equivalent to the bench-lined entry porch structures to the military compound in the E7 Temple of Azzanathkona on D St and to the *principia* forehall on 10th St. Terminating in half-columns, it was similar to the axial porch of the Roman Palace. The modest E4 structure, which could not have been bigger without undue obstruction of F St, was nevertheless a prominent and doubtless guarded entrance indicating an important military building. While the Roman Palace was also partly residential, all three comparators marked structures with official administrative functions. Another especially close parallel is at E8 on E St, which may also have marked an officer's residence or administrative facility. It is suggested that in the initial military phase the E4 house also served partly as a contingent headquarters, with room 23 as the *aedes* housing a standard and imperial *imagines*.

In the early military phase of E4, then, the officers' accommodation role of the J1-A house was combined with the command and administrative functions of the E7 Azzanathkona compound. On this model, the upper floor of E4 could have provided the office and archive space inferred for the multiple rooms of the Azzanathkona compound, perhaps also housing, as the excavators speculated, *immunes* comprising a unit's administrative staff (PR 6, 29).

Later most of the ground floor of the building was changed from HQ/officers' accommodation to a food processing and

production complex—a major change of function. The stables were presumably now used for pack or draught animals supplying foodstuffs rather than officer's and messengers' mounts. But what was the rest of the building used for? The likely answer to this derives from a wider consideration of the location of the building.

The great E4 house was a lofty and very prominent building in this part of the city; indeed it was targeted for excavation because still a distinct mound in the 1930s. The civil house was likely built in the first place because the site was on an important intersection, of F St from the centre of the agora and 8th St leading to the wadi road and River Gate. It may have been taken over by the military both as a large, practical pre-existing space readily adaptable to command and administrative needs of an incoming unit, and as a prominent landmark close to the SE corner of the early NW plateau military base zone. It was a valuable military watch-point, a function it likely retained throughout. Door 5 observed movement on F St while door 26 covered G St, giving rooms in the building an additional guardroom function like J1-A8. The armour and artillery stones found may represent the use of this prominent structure as a block-house in street fighting during the final siege.

In military use the E4 house always overlooked two major streets into the base area, with multiple important official functions, initially as a unit or contingent HQ and officers' residence, later as a central food processing facility (conveniently on the main access routes into the base), and always as a guard house for surveillance of movement into and out of the W part of the military zone. While we do not know what the upper floor was used for, at least until the massive disruption of life in the 250s, the prominent E4 house was probably never appropriate, or used, for accommodating ordinary soldiers as E8 and many other blocks were.

Chronology

With regard to the chronology of these phases, the excavators noted 'the house itself has afforded no data for the dates of the various vicissitudes through which it passed, but there is certain amount of comparative evidence which allows them to be fixed with tolerable accuracy' (PR 6, 30). They assumed (on no direct evidence) that the building had been used by *cohors II Ulpia* which at the time they believed had arrived as soon as the Romans took over the city, and so proposed military conversion of the building c.170. The later changes were 'to be connected with the periods of Severus and Caracalla' (PR 6, 30), based on stratigraphic relationships observed with the sequence in F3 across 8th St to the S, which Brown sectioned (PR 6, 30–1). The amphitheatre was built on top of 8th St's 'pavement 5'. 'It was about the time of the laying of pavement 5 [which sealed the stoke pit] that [the hypocaust serving] 33 was abandoned... These

alterations may, then, be roughly dated as shortly previous to 215–6 A.D.' (PR 6, 30–1).

Whether the initial military takeover was quite as early as the excavators argued is unclear, but it is reasonable to assume it took place during the second century, with the officers' residence/HQ phase lasting some decades. When was the change from officer's accommodation to the 'industrial' phase? Brown plausibly argued that abandonment of the E4-33 hypocaust was necessitated by construction of the amphitheatre in 215–16, as this narrowed the road on the S side, pushing traffic close to E4's S wall and over the position of the stoke pit. This would offer a terminus ante quem at least for use of the hypocaust. It makes wider sense to envisage loss of officer's residence and HQ functions in E4 with the radical Severan/Caracallan reorganization of the garrison, expansion of the base, and especially construction of the formal *principia* building, in the years immediately preceding building of the amphitheatre. The second, 'industrial' phase in E4 apparently then lasted until the early 250s.

THE F3 BATH

Excavation and Publication

The bath and *palaestra* complex in F3 (Fig. 5.40), and the amphitheatre which succeeded it (below), were excavated by Brown in the sixth season, and published by him (PR 6, 49–83, and pls. III, XIV, 1, and XVI, 1). The archive contains additional photographs, but no field notes. Brown's written account does go into detail regarding the features, layers and stratigraphic relations of what was evidently a complex sequence of development but, besides sometimes mislabelling surrounding streets, it is very hard to follow with certainty, let alone critique, given the poverty of accompanying illustrations. The single plan provided of the whole bath/amphitheatre complex, drawn by Van Knox (PR 6, pl. III), was accompanied by a plan of the (apparently final) heating, water supply, and drainage systems (Fig. 5.41), and a reconstructed cross-section elevation of the suite which certainly conflates phases, showing the large early plunge pool with the late, arched form of the *tepidarium* roof (Fig. 5.42). These drawings were reduced excessively, making it very hard to see details: room numbers are barely decipherable. Unfortunately, it seems that the artwork was lost. The decayed archive negative of the drawing (Y11) provides little more detail.

F3 was closely examined and extensively photographed in 2007 and a TS survey conducted in 2008, when magnetometry also provided important new information on the unexcavated S part of the block. Targeted cleaning and further photography followed in 2010. At that time the main bath block was fairly well preserved, although the mud-brick

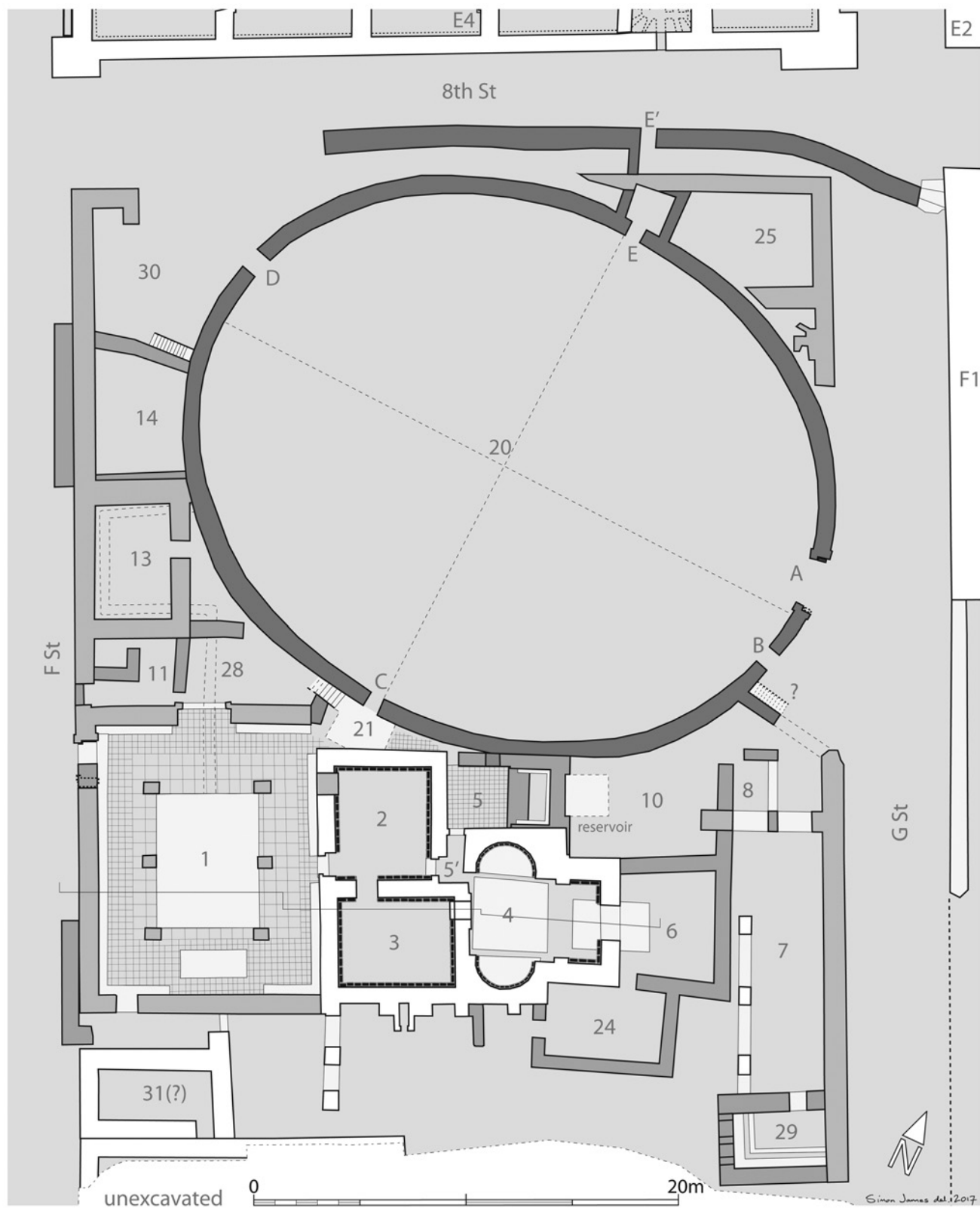


Fig. 5.40. Plan of F3 bath and the amphitheatre which succeeded it, showing inferred structure of bath *palaestra* and later arena. Based on Van Knox survey and drawing, *PR* 6, pl. III, with corrections. Tones reproduce distinctions made by Knox. Tiling schematically represented.

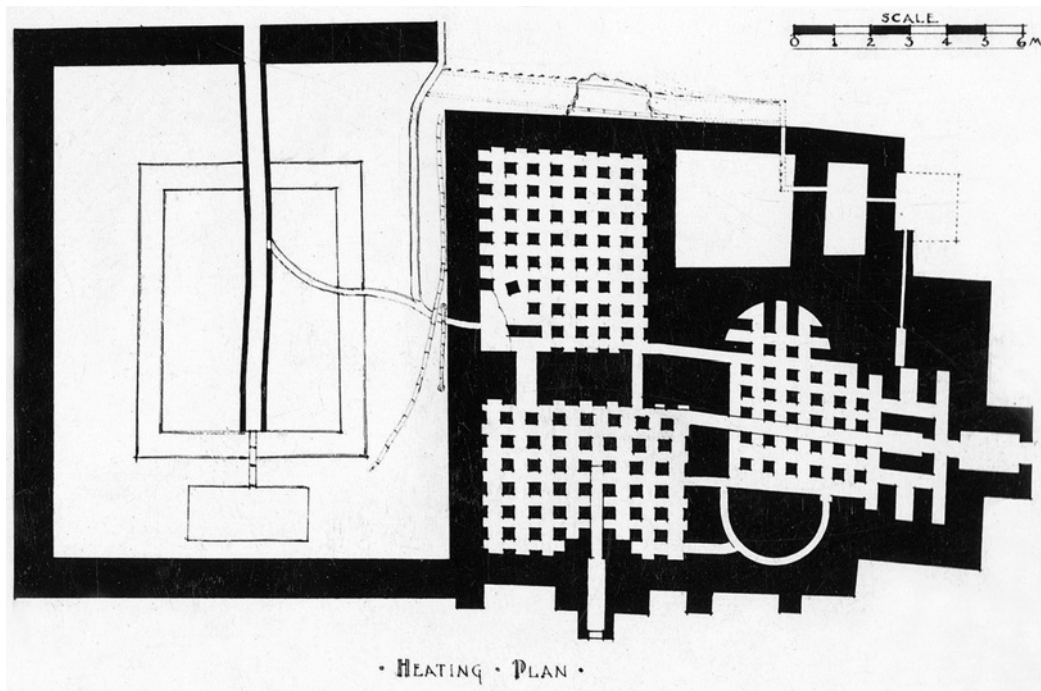


Fig. 5.41. F3 bath hypocaust and hydraulic plans, after *PR* 6, pl. III. Artwork lost, nitrate negative decayed, surviving only in an archive print.

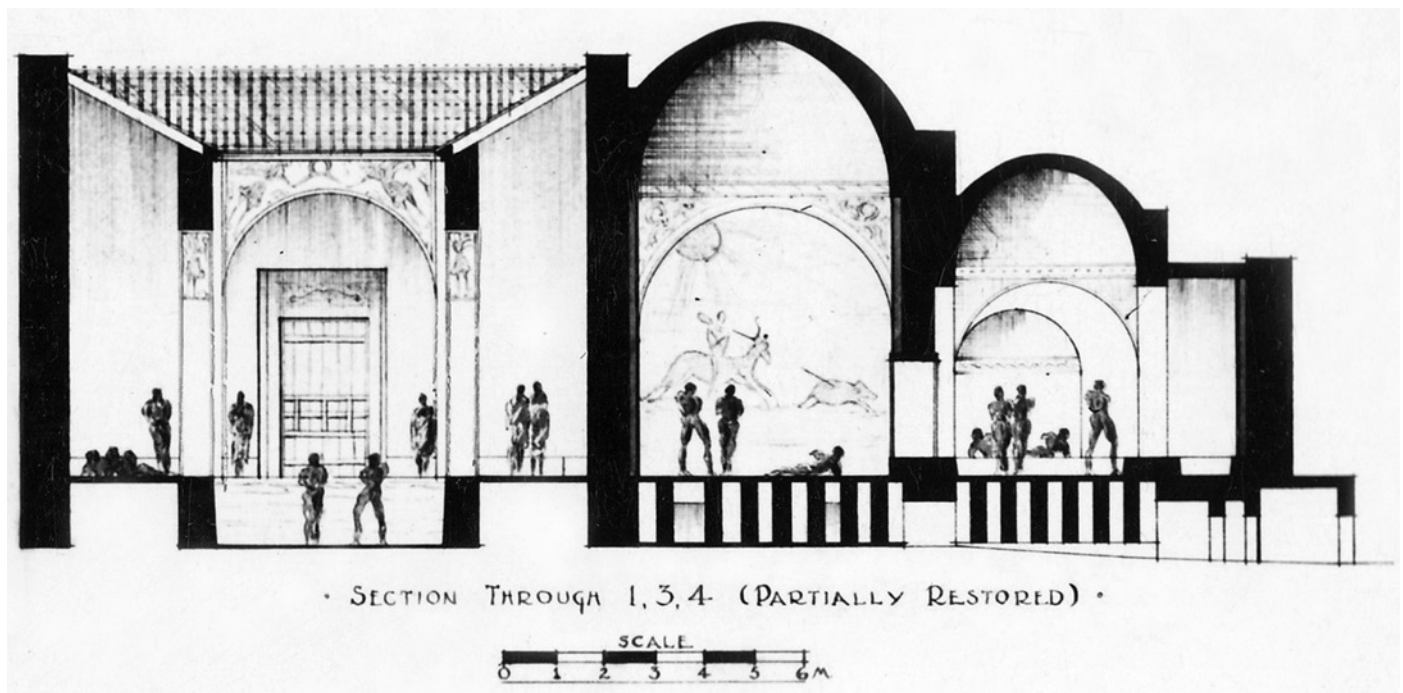


Fig. 5.42. Reconstructed elevation of F3 bath, looking N. This conflates *frigidarium* phases. Drawing by Knox, published in *PR* 6, pl. III. Artwork lost, nitrate negative decayed, surviving only in an archive print.

walls of ancillary structures were extensively eroded, and many features obscured by rubble, wash, and vegetation.

Description and Constructional Sequence

The reader is referred to Brown's detailed account, which cannot be fully repeated here. The bathing establishment was thought to have occupied the northern two-thirds of the block with housing to the S (PR 6, 49), but in reality occupied all of F3.

The entire complex was originally enclosed by a wall (PR 6, 56). The bath building proper lay across the middle of the block (Fig. 5.35, bottom), its heated suite differing from Dura's other baths in being built of stone, rather than brick-faced concrete. The facility (Fig. 5.40) was accessed from F St via a grand doorway directly into a small columned space which served as its *frigidarium* (1). The entrance to the heated suite lay across this, while on its N side another grand doorway opened into the SW corner of the N part of the block. Although subsequently much modified for creation of the amphitheatre, fragments of earlier rooms around the sides of this N area were visible (PR 6, 56), while in contrast no walls were encountered beneath the arena area. This is consistent with the inferred layout of the preceding bath *palaestra* (PR 6, 56–7).

The S end of the block, between 6th St and the structures and spaces revealed adjacent to the S side of the bath building, was not excavated except for trenching tracing its perimeter. A Detweiler survey drawing shows this located some former door positions on the W and S sides, although the E edge remained obscured (Fig. 5.35). But geophysics (Pl. VIII) reveals another open court in this area, with rooms lining its W side, and a narrower space, probably a colonnade, along its S edge. The E side is unclear in the magnetometry plot, but Brown noted that 7, an early W-facing colonnade backing onto G St later blocked by latrine 29, appeared to continue S down the E side of the block; he also noted the likely start of a colonnade down its W side, from the SW pier of room 3 (PR 6, 57). The S area, then, had likely been colonnaded around three sides, although not directly accessible from inside the bath which presented an unbroken wall to it (the rough door through the S wall of 1 Brown regarded as an amphitheatre-phase feature, below).

Brown thought that 'late housing' occupied the S part of the block, of which was revealed only one room, 31 (PR 6, 71: not identified on his published plan). However, the most likely interpretation is that the S part of the block comprised a walled service yard for the bath. The S court also provided space for fuel stores, and for ash dumps which eventually filled the space; in 2010 the ground surface of this area was black. This arrangement, of a bath with *palaestra* on one side and service yard with massive ash dump on the other, mirrors in layout and scale that reconstructed for the E3/E4 complex to the N.

The bathing suite itself initially comprised four rooms (Figs 5.40 and 5.43). The large rubble-built entrance-court-cum-*frigidarium* (1) originally consisted of a large central pool open to the sky, was surrounded by a portico on six pool-edge piers, one surviving to 1.8m on excavation. At least in their final form, the piers carried arcading. The published reconstruction shows a sloping roof, but it could have been flat (PR 6, 50). Later the big pool was entirely filled in and paved over, being replaced by a smaller 'basin' or plunge on the S side of the space. The painting of the late *frigidarium* superstructure included on the N face of the SW pillar a flying Victory (Fig. 5.44; PR 6, 51, 63–7, pl. XLI, 1). Compared with another on a wooden panel from Dura (PR 2, 181, pl. 1 and frontispiece), the F3 example is seen to be much closer to Hellenistic originals. There were also illegible traces of a Greek inscription on the S arch (PR 6, 52).

In plan, of three heated rooms of the bath building proper (2, 3, and 4), the last drifts significantly off orthogonal layout. Unlike the other baths walled in brick-faced concrete, the F3 suite was built in 'sandstone' ashlar (the tough 'siliceous limestone' of the plateau surface?), with fired brick hypocausts and *tubuli* from the start (PR 6, 52–6). One *praefurnium* lay at the E end of room 4, the other on the S side of room 3, with room 2 being heated indirectly via channels from both (PR 6, 52–3). Room 2 would have been cooler than 3 or 4, and the pattern of doorways also placed it between both and the *frigidarium* (1). Room 2, then, served as a *tepidarium*, originally with two doors from the *frigidarium*, the N one being subsequently blocked (PR 6, 51).

The original bathing sequence appears to have run from *tepidarium* 2 to the dry, hot room 3 and then through 3's N door to *caldarium* 4 with its heated pools. A secondary passage, 5', allowed bathers to move directly between 2 and 4. Corbelling at the corners of the surviving walls indicated rooms 2 and 3, at least, were domed: 4 was too ruinous to preserve evidence but likely also had a dome (PR 6, 54–6). However, no trace of fallen vaulting remained on excavation (PR 6, 55). Room 4 possessed three 'basins' or pools, a long rectangular one at the E end directly over the furnace, the others of apsidal form. Brown argued that the entire E wall of the *caldarium* formed a large window (PR 6, 55). It is unknown how the bath, with its *frigidarium* pool and *caldarium* 'basins', was initially supplied with water. Brown suggested it had to be brought in by hand (PR 6, 57–8).

The N parts of the complex are less well understood due to subsequent demolition and overbuilding to create the amphitheatre, but appear to represent an open *palaestra* with rooms around three sides (PR 6, 56). Room 25 was interpreted as a latrine (PR 6, 56–7). Although Brown noted that the drainage channel running N from the *frigidarium* pool deviated to run around three sides of room 13 (PR 6, 58), he apparently did not realize that this strongly suggests that this, too (or instead), was at one stage a latrine.



Fig. 5.43. The F3 bath in 2010: a. from the SW and b. from the E with amphitheatre arena at right; c. the *caldarium* from the NE.

There is no clear evidence for how long the bath was in use in its initial form, before it underwent substantial remodelling, according to Brown its duration ‘revealed only in the sequence of pavements in the *frigidarium* and the rise in the adjacent west street’ (PR 6, 68). The surface of the adjacent F street rose 0.6m, consequently requiring raising the street-door sill by that much. He evidently assumed that the change in street level was the result of gradual accumulation implying a substantial elapse of time. Similarly, he noted a ‘sequence of pavements’ in the *frigidarium*, recognizing three layers of concrete each c.80mm thick, which he apparently considered implied a series of separate refloorings again implying a prolonged period of use. However, on the evidence available, the raising of F St may have been episodic rather than gradual, while it is entirely feasible that all three ‘repavings’ comprised a single scheme to raise the floor, conducted in three stages to allow each layer of concrete to

set, conducted at the same time as the street door threshold was raised. Neither the street level nor this floor evidence, then, necessarily implies any great lapse of time between initial construction and subsequent, more major remodelling.

According to Brown, the bath underwent a substantial refurbishment, followed by evidence of another prolonged period of use (PR 6, 68–72). The overhaul saw the *frigidarium* pool filled in with sand, and replaced by a smaller ‘basin’ at the S, shady and coolest, end of what was now a small peristyle court. The entire area of the *frigidarium* was paved with a thick layer of gypsum mortar 90mm thick, which Brown interpreted as forming another floor surface in its own right. The street door was narrowed and its threshold raised again, and new mortared benches built around the walls. These included what he interpreted as ‘arms’ (i.e. arm rests) made around terracotta pipe sections, also used in the drain for the new S basin (PR 6, 68; Fig. 5.45, b). They are



Fig. 5.44. Painting of Nike or Victory from the F3 bath.

more likely supports for wooden seating at a higher level necessitated by raising the floor surface.

The filling in of the big *frigidarium* pool and its replacement by a smaller plunge were, in Brown's view, prompted by installation of a piped water system which centred on a new reservoir, apparently subsequently destroyed when the amphitheatre was constructed (PR 6, 68–71). The reservoir lay on the E side of room 5, which Brown believed was added as part of the same refurbishment (PR 6, 69–70). The reduced plunge in *frigidarium* 1 was fed from the reservoir via a terracotta pipe, part of which lay *in situ*, running partly under the mortar bench backing onto room 2 and, where it ran across the floor, 'covered by a raised paving of bricks' (PR 6, 70). Brown convincingly saw the new hydraulic system as the terminus of the ceramic pipeline found running down G St from the water-raising system on the N city wall, encountered where it bypassed the E3 bath (PR 6, 101).

With the construction of room 5, Brown argued, a new bathing sequence was established through modification of the suite and introduction of a changed internal circulation route, meaning that it 'resembled more closely the ordinary Roman bath types', in which the E door of room 3 was blocked, making it an isolated *laconicum*. Room 5 was accessed from corridor 5' between 2 and 4. It contained a rectangular plunge pool with a feed from the adjacent new reservoir (piercing the wall at a high level, so a 'shower'), and probably served as another *frigidarium*. Brown also ascribed to this period enclosure of the E *praefurnium* area with rubble-based mud-brick walling (areas 24 and 6: PR 6, 69).

Brown believed that the remodelled bath was then used for a further extended period, apparently to be measured in years if not decades, before the final fire. He based this conclusion on 'the succession of pavings in the *frigidarium* [1], the new room 5, and the corridor 21, between them' (PR 6, 71). He interpreted all this as later than the installation of the new water system and other elements (especially construction of room 5) of what he believed had been a single refurbishment episode (PR 6, 71). The first of these supposedly subsequent modifications, he affirmed, was a brick paving laid over what he conceived as the bare mortar flooring of the refurbishment phase. He reported that this was in turn overlain by a second brick paving, itself in places patched by a third, raising the floor by 0.2–0.3m. He also noted that, for reasons unknown, the N entrance to the new room 5 was subsequently moved to the W, which on his reading of the sequence provided further evidence of significant time elapsing between refurbishment and fire (PR 6, 71–2).

While impossible to quantify the time elapsed, such a sequence would certainly imply a considerable period of use for Brown's refurbished bath after installation of the piped water supply. However, there are strong reasons to believe that he seriously misread the stratigraphic sequence, reversed part of it, and even accidentally created a spurious final phase of flooring. These apparent errors likely arose from limitations of his own records and of his memory of the excavation, exacerbated by the thoroughness with which the later phases of the *tepidarium* had been removed to reveal its earlier conformation. When he came to compose his report, critical evidence may already have been entirely destroyed, preventing checking in the absence of adequate primary records. However, internal evidence of his published text, and the meagre surviving records, suggest a very different sequence and chronology from those set out in the publication.

Key to reinterpretation is this curious statement by Brown: 'The first brick paving [i.e. over the 'mortar floor' covering the entire *frigidarium*] brought the floors of 1 and 21 flush with the bricks covering the conduit to the *frigidarium* pool' (PR 6, 72). That is, Brown envisaged that the bath refurbishment had comprised filling-in of the central pool and flooring of the whole space in mortar, and installation of the water-feed

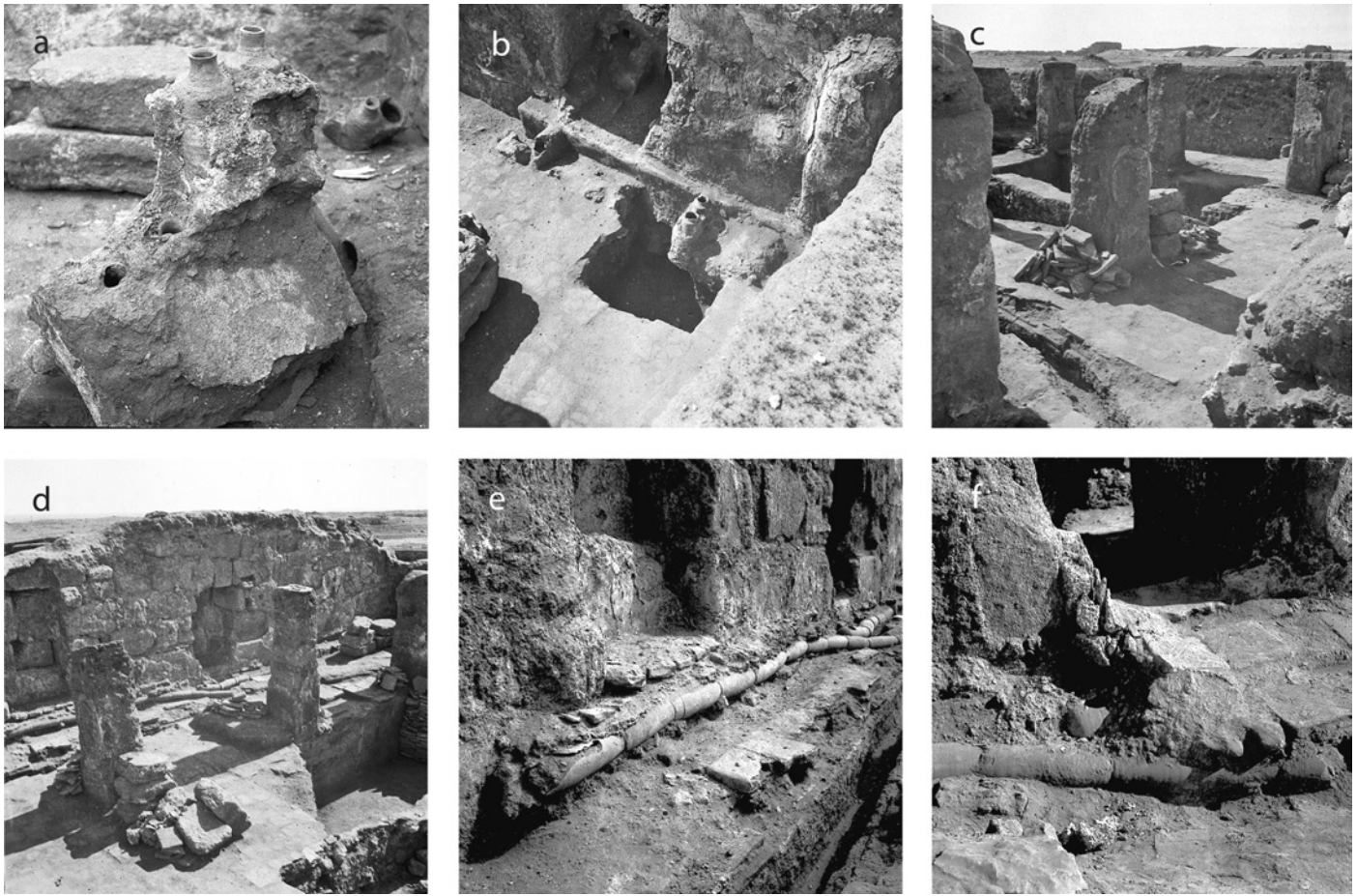


Fig. 5.45. Archive photos of F3 bath court/*frigidarium* under excavation. a. Ceramic pipes in fallen fragment of the frigidarium arcade; b. pipes used as bench supports; c. the line of the piped main excavated beneath the tile floor; d. *frigidarium* water supply pipes against the wall of the heated suite; e, f. closer views.

to the new small plunge, the pipe being protected where it ran across the floor by tiling over it—the whole thing standing proud of the mortar floor. This would have formed an area in the corner of 1 raised by at least 200mm. Only in a subsequent phase, in Brown's view, was the 'mortar floor' made up and tiled to the same level as this hitherto upstanding feature. This is bizarre and implausible.

What Brown apparently saw, as the *frigidarium* was excavated, was a brick floor with a linear discontinuity evident in it. This is more rationally explained in terms of the mortar layer never constituting a floor surface at all, but simply being the bedding for the tile flooring which was immediately laid over it. Then, at some subsequent date, the tile floor was partially dug up to lay the ceramic pipe beneath, and was imperfectly restored. This strongly implies that the big pool was filled and paved over with brick before the new hydraulic system was installed or even contemplated. Brown's supposed single refurbishment, then, appears to conflate more than one distinct phase.

Allowing for this could explain another detail which puzzled Brown: the moving to the W of the N door of room 5 (PR 6, 72), which becomes explicable if it was undertaken as part of the planning and installation of the new hydraulic system. Creation of a new plunge in its E part prompted relocation of its door to the W end of the N wall. If the major structural changes to the *tepidarium* were 'prehydraulic', then it is likely that the other changes in circulation within the heated suite were too. This indicates that the bath underwent two separate refurbishments: the first to its conformation, and later a second bringing the piped water supply.

Returning to the crucial *frigidarium* phasing and the late history of the bath, as we saw Brown clearly reversed the true sequence of the water main and his first tiled floor. What of his second tiled floor, reportedly laid over the first, and itself subsequently patched, indicating a prolonged period of use after the water main was laid? His second layer of brick paving after the hydraulic installation is not apparent in the

surviving archive images (Fig. 5.45, c–f). It is suggested that the ‘second paving’ never existed at all, but is a garbled repetition of the ‘first paving’ which, on initial discovery, would have presented a patched surface from insertion of the piped main, exactly as Brown described the ‘second paving’. It is most likely that this is another product of the confusion of Brown’s records, memory, and interpretations seen in his errors over the water main sequence. It seems, in summary, that no structural alterations at all can be shown to have been made between installation of the piped water supply, and destruction of the bath. These conclusions have significant implications for our understanding of the entire constructional sequence of the F3 bath, and its likely chronology.

The building finally suffered a catastrophic fire, extensive traces of which were seen on excavation (PR 6, 54, 72). It was not rebuilt. Brown argued that there was likely a hiatus of ‘at least four or five years’ with the site standing derelict, because several mud-brick walls around the bath had fallen over before the amphitheatre was built (PR 6, 72, 77). This, too, is implausible. The fate of mud-brick walls at Dura exposed since the 1930s suggests that they tend to dissolve rather than topple, so if walls were found fallen, it was more likely either a consequence of roofs collapsing during the fire, or of deliberate demolition, neither of which implies elapse of years.

To summarize, Brown envisaged the F3 bath sequence like this:

1. Initial construction of the bath, with the large *frigidarium* pool.
2. A prolonged period of use with a series of incremental repairs, involving three successive elevations of the *frigidarium* floor and raising of the street threshold.
3. Major refurbishment, comprising building of room 5 and adjacent reservoir receiving the G St water main, filling and flooring over with mortar of the big *tepidarium* pool, installation of new smaller plunge, and laying of its supply pipe.
4. Second prolonged period of use, attested by two further tile floorings of the *frigidarium* and moving of room 5 door.
5. Destruction by fire.
6. Toppling of some walls indicating further elapse of years.
7. Construction of amphitheatre, dated 216.

The more likely sequence is:

1. Initial construction of the bath, with the large *frigidarium* pool.
2. A single operation raising both the street threshold and, through laying three layers of concrete, the level of the *frigidarium* floor. This might itself have immediately preceded and prepared for 3.

3. Substantial refurbishment of the bath, involving filling in and tiling over of the large *frigidarium* pool, probably contemporaneous with the building of room 5 and the reordering of access within the heated block.
4. Second, ‘hydraulic’ refurbishment, comprising laying of the G St water supply, construction of the new reservoir, installation of plunge bath in 5 necessitating relocation of its door to the W; laying of water supply under the *tepidarium* floor.
5. No further modifications before final fire, which involved collapse of some walls.
6. Construction of amphitheatre, dated 216.

Chronology

A *terminus ante quem* for the entire F3 bath sequence is provided by the epigraphic date for the overlying amphitheatre, dedicated in 216. However, Brown labelled the bath ‘Parthian’, thinking its foundation was pre-165 (PR 6, 49). He argued that ‘An approximate date for the original construction [of the F3 bath] is given by the fact... that the first dumping of ashes in Street 9 [sic: 8th St] between F3 and E4 occurred before the erection of the great Parthian house in E4, but, apparently [sic], after the original building on the site’ (traces of an earlier house underlie the surviving building: PR 6, 77). This refers to arguments set out earlier in the *Preliminary Report*, where Brown records that the stretch of 8th St between blocks F3 and E4 had already accumulated c.0.2–0.3m of ashy deposits when the second E4 house was constructed (PR 6, 5), noting that the other streets around E4 had accrued no more than 0.05m of ‘rubbish’ at the time. He ascribed this ash to the F3 bath, which he therefore argued precedes the great E4 house explored by Yale. Brown then confidently ascribes the building of the second E4 house ‘to the third quarter of the first Christian century’ (PR 6, 77); however, this date is actually an estimate ultimately reliant on the highly questionable assumption that the adjacent street surface rose at a constant rate (PR 6, 31–2). Since he argues that the bath was already producing the ashes dumped in 8th St when the second E4 house was built, Brown therefore opines that ‘The middle of the [first] century... is indicated as the epoch of the first bath building’ (PR 6, 77). It is not possible to check this stratigraphic interpretation without re-excavation. However, there is a major objection to the argument. It ignores the fact that there was, for a period, a *praefurnium* generating quantities of ash in this very stretch of 8th St itself, heating the hypocaust in room 33 of the E4 house—during the Roman period. A far more economical explanation is that this was the source of the 8th St ash stratum, and that Brown simply misinterpreted the stratigraphy—which therefore tells us nothing of the chronology of the F3 bath.

With regard to in-use changes to the F3 bath, Brown proposed that ‘introduction of a feature typical of the purely Roman baths of Dura, the unheated, or only indirectly

heated *tepidarium*, and of a new and more typically Roman room sequence, suggests a time after the beginning of Roman occupation and influence. The third quarter of the second century best answers these requirements' (PR 6, 77). The association of the major bath remodelling with the presence of the Romans is a plausible guess, although closer ascription to the earliest years of permanent Roman control is not warranted on the evidence. In my view, Brown's linking of the 'hydraulic' refurbishment with the laying of the G St water supply is much firmer, although he did not make use of the fact that this main also has a significant stratigraphic relationship with the E3 bath (p. 102). On the other hand, it now seems that he conflated into a single, major refurbishment two separate phases: revision of the bath building, followed only later by the new water system. He posited the fire as occurring 'at least four or five years previous to 216' (PR 6, 77), a supposed hiatus questioned above.

A review of the chronology of the F3 bath must include Pollard's important critique. He observed that, if Brown was right in ascribing the baths to the era of Parthian rule, since nothing like it is otherwise yet known in the Parthian domain (citing Colledge 1977, 56–7), this would represent a 'Roman technological "package"'—of hypocaust, Roman-sized and Roman-shaped burnt bricks, concrete domes, vaults, and vaulting tubes—being found outside the empire (Pollard 2004, 132). However, he noted that others had already raised doubts about Brown's dating (citing Perkins 1973, 25), and critiqued the supposed stratigraphic relations with E4 (Pollard 2004, 132, 140–1). He emphasized that basic features of the F3 bath, like fired bricks in Roman sizes (Pollard 2004, 134), and especially the use of ceramic tubes which reduced the weight of arches and vaults without compromising strength (Pollard 2004, 135, pl. 8), also appear intrusive at Dura itself. Pollard therefore rejected Brown's interpretations, and suggested the baths were likely built under Roman rule.

Pollard emphasized the special significance of the ceramic vaulting tubes, also found in other Dura baths. For, while hypocaust systems were widespread through the Roman empire during the Principate, vaulting tubes were not: they have not turned up at other Syrian sites. However, they were employed in the central Mediterranean from the second century AD, especially in Africa. There are known outliers from this regional concentration, which he argued very plausibly are relevant to the Durene case. While none have been found in Northern Gaul or Germany, vaulting tubes turn up in legionary baths in Britain, e.g. in early third-century contexts at Caerleon, which have been explained in terms of direct influence of North African military personnel in Britain (Pollard 2004, 139, 142). Pollard therefore suggested that the Roman military was the most likely agency for the presence of these vaulting tubes at Dura, and more specifically, members of a contingent of African origin. He notes evidence for members, probably a vexillation, of the African

legio III Augusta in Syria and the East during the second century, 'so it is quite possible that an African military architect was present in Dura at some time' (Pollard 2004, 142).

Pollard's suggestion of African military inspiration for the vaulting tubes in Dura's baths is a valuable insight. What, then, are the implications for the F3 bath and its chronology? If we accept that the bath was built by the Roman military, but long enough before the construction of the amphitheatre in AD 216 to account for its multiple modifications, then when was it established? Pollard opined that the Trajanic occupation 'may be too short for the construction of a bath building, and [so] if the Roman army was responsible, a date after AD 165 seems more likely', although as the Middle Euphrates between Trajan and the 160s was something of a no-man's land, another brief undocumented Roman occupation was possible in between (Pollard 2004, 142–3).

Without specific evidence, it seems inappropriate to hypothesize yet another Roman military occupation, of sufficient duration to involve bath construction, between those attested under Trajan and Lucius Verus. If the bath was erected in, say, the late 160s, it is feasible to imagine the revised sequence, potentially requiring less elapse of time than Brown had thought, fitting into the available half century. However, could the bath, after all, actually be a relic of the brief Trajanic occupation? If during that episode the Romans certainly had time to plan and erect a triumphal arch out on the steppe plateau (Fig. 11.2; James 2015a), they were there long enough to build a bath house too—and until withdrawal was ordered, they likely expected to stay indefinitely. However, a difficulty here seems to be Pollard's vaulting tubes; a Trajanic date at Dura would make them very early by comparison with known central Mediterranean examples which he sees as inspiring the Dura ones. Pollard plausibly argued that there is no evidence to support the alternative idea that they actually originated in the East (Pollard 2004, 139).

The archaeological evidence suggests a resolution: the vaulting tubes did not pertain to the original building of the F3 bath, but to a later refurbishment. In fact, there is no evidence they were ever used in the heated suite. As Pollard notes (2004, 138), Brown was specific: no vault fragments were found in the heated rooms, and he speculated that after the fire the vaults had been broken up to recover the embedded tubes (PR 6, 56). This is implausible, as Roman concrete is normally harder than earthenware, making it practically impossible to remove surviving tubes intact. Perhaps fallen vaulting was removed after the fire because the initial intent was to rebuild, before a change of plan led to construction of the amphitheatre. In any case, we have no evidence of tubes in the main bathing suite. Such tubes were found only in fallen fragments of the *tepidarium* superstructure, where they had been used to reduce the weight of arcading on top of the six piers supporting the roof. While the piers themselves date to the first phase of the bath, it is argued here that the arcaded

superstructure on top of them represented re-roofing as part of remodelling the *tepidarium*. Indeed, they make best sense in the context of the end of the sequence, by which time the floor of the space had been raised by at least half a metre. Removing an existing lintel-built roof, and constructing lightweight arcading on top of the piers, would have restored the height and proportions of the space. It may be no coincidence that the last stratigraphic phase in the *tepidarium* involved introduction of at least one other type of ceramic tubing to the building: segmental water pipes. Pipes were also used in the 'armrests' of the late benches round the room, which Fig. 5.45, b suggests were actually used in constructing supports for a new, elevated bench as the old one was now part-buried by the raised floor. It is suggested that the *frigidarium* was also reroofed using ceramic tubes in its arcade in this final period. Whatever the precise phasing here, it is at least clear that the main F3 bath structure plausibly preceded introduction of vaulting tubes to Dura.

Pollard was also unaware of the important stratigraphic/spatial relations between the F3 and E3 baths inferable from the course of the water supply in G St. It seems beyond reasonable doubt that the pipeline bypassing the E3 bath was laid to supply the F3 facility, and that the pipeline and F3 hydraulic installation were therefore contemporaneous. Crucially, the water main was laid on a course which demonstrates that the angled E3 bath already existed, or was at least laid out. This in itself implies that the E3 bath did not, as has hitherto been assumed, succeed the F3 bath; rather, when the F3 bath was refurbished, the E3 *thermae* were already at least under construction, and it was envisaged that both facilities should operate simultaneously—or rather, should *continue* to operate simultaneously, as baths at both these locations had already been doing for some time, perhaps decades. For while it was already known that the F3 bath had a significant period of use before its refurbishment, it is now also clear that the angled E3 facility was the second bath on that site (p. 102).

I therefore suggest a new hypothetical chronology, with the F3 bath as perhaps a Trajanic military foundation. Choice of location was constrained, as were later military buildings, by existing city topography. Block F3 was chosen, probably because it was still partially open ground—and already public space. Brown considered that colonnade F3-7 might be 'a remnant of a previous treatment of the area' (PR 6, 57). It is suggested that the two courts which flanked the bath (Fig. 5.35, bottom) had originally comprised one, block-sized facility, perhaps the *palaestra* of the hitherto-unlocated *gymnasium* of this formally Greek city. Following withdrawal of Roman forces at the end of Trajan's reign, the new bath in F3 was kept in use by people resident at Dura, or at least was left intact.

Most likely after 165, the F3 bath layout was extensively remodelled by the soldiers. With an expanding garrison the enlarged E3 military bath was also built. Then, probably in

Severan times (an especially plausible context for North African influence), the F3 bath received a major makeover involving use of ceramic vaulting tubes and water pipes. Some years later the bath caught fire. In the aftermath, given the existence of several other bathhouses, the decision was taken not to rebuild, but to convert the site into a new amenity: an amphitheatre.

THE AMPHITHEATRE, F3

Excavation, Recording, and Publication

The remains were excavated in the sixth season by Brown along with the F3 bath, over the ruins of which the amphitheatre was built (Fig. 5.40). Brown published a brief account of the amphitheatre (PR 6, 72–7) and its dedicatory inscription (PR 6, 77–80, no. 630). In the account surrounding streets are misidentified, with 8th St misnamed 9th St, and G St mistaken for H St. The publication plan was reproduced at a tiny scale, along with a single photograph showing the arena looking E (PR 6, pls III and XIV.2). The archive contains little to supplement the publication, beyond some additional photographs. There are no field notes.

The site was examined and extensively photographed in 2007, followed by more photography and TS survey in 2008, with targeted cleaning and final drawing in 2010. At this time the condition of the monument was poor, the arena 'pseudo-wall' (below) eroding and starting to collapse. A section of the N street perimeter wall had already fallen inwards. Other mud-brick walls had dissolved into mounds.

Description

After destruction of the F3 bath by fire, instead of rebuilding it the site was turned into small amphitheatre (Figs 5.46 and 5.47). Its arena was centred on the site of the former *palaestra* at the N end of the block, while the surrounding seating structures, of which few traces remain, incorporated the ruins of the F3 bathing facility and were also built across the adjacent stretch of G St, henceforth closed to traffic at this point. The S limit of the new amphitheatre complex was also apparently identified: 'The walls of room 31 ... adjoining on the south were razed and a new wall of mud brick was run for 19.80m behind it from St F to the new piazza [i.e. on the line of G St: below] south of the amphitheatre. The space between this wall and the bath was levelled up by about 1.50m to the level of the piazza and metalled with sand and river pebbles to form an alley on the piazza. At 1.9m from the southwest corner of the *frigidarium* an opening 1.00m wide was roughly broken through the *frigidarium* wall', suggested to be for a robing and props room for the amphitheatre (PR 6, 75). This account is hard to make sense of, and cannot be matched to the published plan (which does not show a 'room

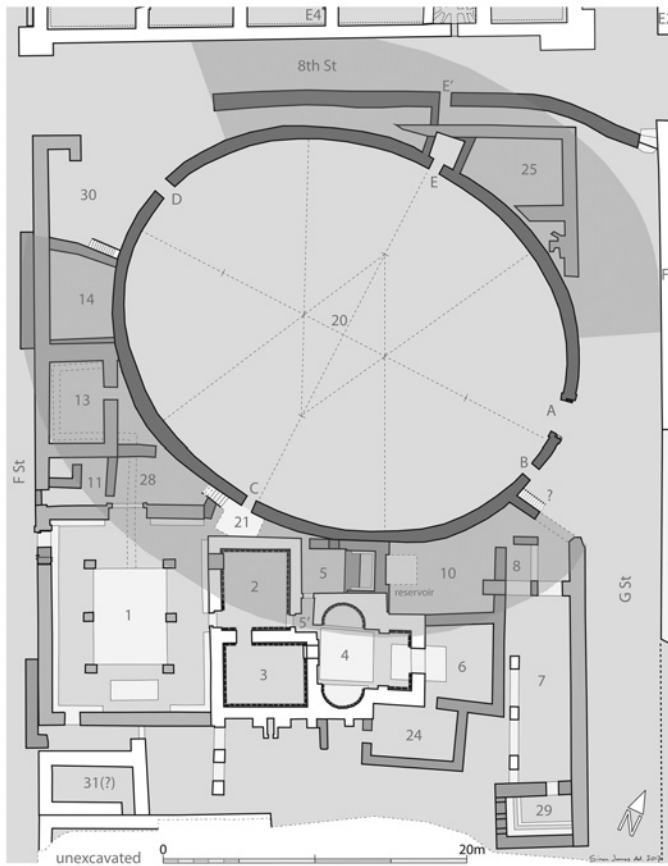


Fig. 5.46. Interpretive plan of the N half of block F3, showing the amphitheatre layout. The arena geometry is indicated, and reconstructed seating arcs projected in darker grey.

31', although the likely candidate is indicated on Figs. 5.40 and 5.46). The new wall line referred to seems to equate to what was actually a tall mortared rubble wall, forming the S limit of excavation on the W side of the block.

Brown notes that the short axis of the arena was almost true N-S (PR 6, 72), but does not otherwise comment on this orientation which deviates significantly from that of the streets and property lines into which the arena was inserted. Perhaps more significant was that the long axis was therefore truly E-W, perhaps for religious or cosmological reasons. However, this orientation might have been a more or less accidental by-product of another priority, i.e. fitting the largest possible arena within the limited, unsuitably shaped but available space of a city half-block; or of arranging it so that the long-axis arena entrances should open towards the city centre (via G St), and towards the interior of the base (at the junction of F and 8th Streets).

In the published plan the shape of the arena looks distinctly irregular, its N side flattened, which Brown commented on (PR 6, 73, pl. III). However, this is an artefact of inaccurate archaeological survey. Air photos and resurvey in

2008 demonstrated that it is much closer to a regular ovoid form. It does indeed look to have been laid out using arcs of circles according to the 'four centres' construction method as Brown proposed, noting that the resulting form, being less elongated than a true oval, is more suited to the purpose (PR 6, 72–3; on the geometry of amphitheatre layouts see Wilson Jones 2009). The shape was set out from the perpendicular axes on which points were established from which to draw out four arcs of circles creating the arena outline. The geometry appears to have comprised a short axis divided into four equal units to provide the centres for the N and S arcs defining the arena, and a long axis comprising five units of the same size to locate the centres for the W and E arcs (Fig. 5.46). The unit concerned was very close to 6.0m, suggesting a module of 20 Roman feet (using the *pes monetalis* of 0.296m). The arena interior was, then, intended to be 100 × 80 Roman feet.

In the surviving archive photographs, the arena wall still looks impressive, apparently standing almost to head height in places (Fig. 5.48), contradicting Brown's statement that its remains 'nowhere stand to a height of more than 0.7m' (PR 6, 75). But in fact, the upper superstructure had all long ago collapsed into the arena, where spreads of rubble were found. The neat 'mud-brick walling' seen above the surviving mortared wall was actually an artefact created by the excavators. The abandoned arena had constituted a substantial depression, into which over the centuries rains had washed the fine silt from dust-storms and dissolving mud brick from surrounding buildings, filling it to a depth of well over a metre with silt, large masses of which remained unexcavated within the arena in 2010. The excavators evidently located the curve of the remaining intact lower part of the arena wall, and dug along it, leaving unexcavated the block of silt above its line, simulating the original superstructure. While misleading to the casual viewer, this inadvertently helped preserve the underlying remains of the actual mortared-rubble wall, by protecting them from weathering.

The arena had five entrances, only wide enough for single-file passage except entrance A on the E side, a wide gate roughly on the long axis, just N of small entrance B. Opposite these at the W end was gate D. Entrances C and E form the S and N portals respectively. The four narrow entrances were 0.92m wide, each with a stone sill 'but with no apparent provision for doors'; however, they must have had some means of closure if, as seems likely, the arena was ever used for shows involving wild animals available in the region, including lions and boars (as reconstructed the arena wall, at c.3m, appears high enough for this: Fig. 5.49). The large entrance A was 2.08m wide between the jambs, with a stone sill, 'unmoulded jambs, and slightly splayed reveals with jambs set off in rubble on the outside', opening 'outward from the arena with double doors' (PR 6, 73). A socket for a substantial gate post, c.300 × 100mm, was exposed at the N gate jamb in 2010.



Fig. 5.47. The amphitheatre in 2008 from the E (above), and from the NW (below) in 2010.

These entrances seem to have been laid out from, but not centred on, the arena axes. The N door apparently used the N–S axis for its W jamb position, with the S door correspondingly offset to the W. The W and E gates are also ‘rotated’ off axis, the W gate to the N, the E gate to the S. This was partly due to the local topography: the W gate then opened towards the entrance area at the corner of F3 by the junction of 8th and F Sts, providing access from the N, while the small E gate gave onto the still-open portion of G St, and the city centre to the S. Another reason for the rotation of the small-gate axis was the double-leaf gate A, wide enough for processions in more than single file, and for vehicles. Similar to the N and S gates, this appears to have used the terminal of the arena’s long axis to locate its S jamb.

On excavation the N arena doorway E opened into a small chamber, $2.1 \times 1.8\text{m}$, with 0.5m-thick mud-brick walls. This was perhaps a shrine to Nemesis, and/or a cell for prisoners or animals, opposite the likely position of the president’s seating (below). S arena doorway C also opened into a small walled space, but with a flight of stairs on its W side.

Floored with fine imported sand, the arena lay c.1.4m below the contemporary level of F and 8th Streets (PR 6,

73–4). It was connected to 8th St at its junction with F St via area 30, over which no seating appears to have been built. Rather this was an open area carefully graded between the levels of street and arena (PR 6, 74). The two E doors opened directly onto G St leading S. The area of G St outside these gates had been levelled and ‘metalled with sand and river pebbles to form, apparently, a sort of piazza south of the southeast end of the amphitheatre’ (PR 6, 75). It is likely that when the arena was built G Street had also been made up to the level of the other streets, in which case the stretch S of the arena gates will also have been graded to an appropriate gentle slope.

The arena was bounded by a wall on average 0.8–0.9m thick, made of rubble and large gypsum blocks, probably reused from the previous buildings on the site, in *djuss* mortar with gypsum plaster (PR 6, 73). Its height would have been at least that of the ‘podium’ (platform of fill behind it, on which wooden seating was presumably raised: below), which was calculated from the staircases. That at G St survived to 0.84m above a road surface 1.4m higher than the arena, giving a height of 2.24m for the ‘podium’ on the N side. The stair S of doorway D has a total rise of 2.2m.

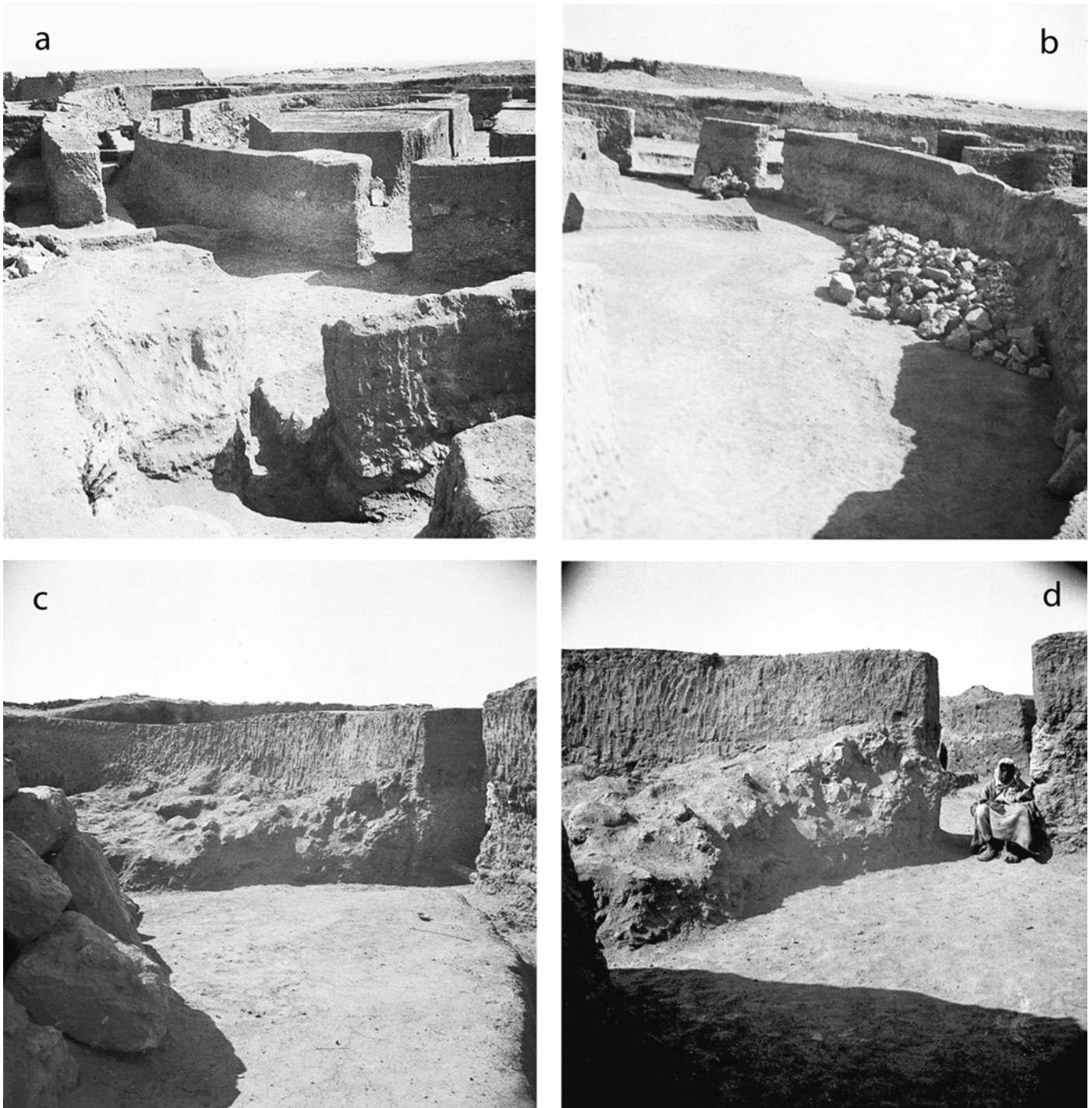


Fig. 5.48. The amphitheatre arena after excavation: a. the N half of the area, showing its W-orientated entrance and (back L) its outer wall. Much of the silt filling the arena is seen still *in situ*; b. interior of the S half of the arena, showing its double E gates; c & d. the top half of the arena 'wall' can be seen here to comprise unexcavated silts above the remaining stone foundation, left *in situ* by the excavators. Collapse from the actual wall into the arena is seen here by the W arena gate.

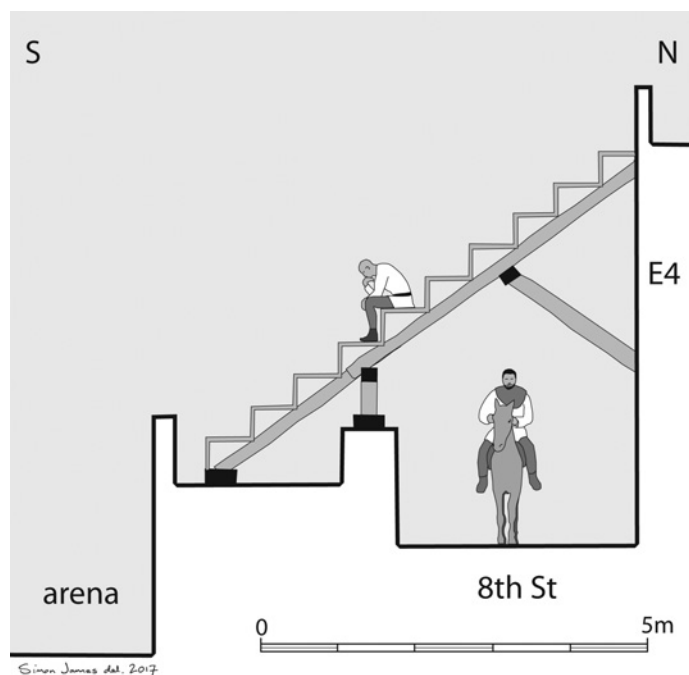


Fig. 5.49. Reconstructed S–N section of amphitheatre at G St, showing proposed structure anchored into the S wall of the great E4 house, carrying seating over 10th St.

A parapet is presumed, taking the arena wall height to c.3m (PR 6, 75). Brown noted that this height is consistent with the collapse debris seen in the arena from the wall (PR 6, 75).

The boundaries of the amphitheatre (PR 6, 73) were provided on the W by the old *palaestra* wall along F St, and to the E, across the old line of G St, by the W street frontage of block F1, which at this point lacked any street doors. On the N side, a new boundary wall was constructed on 8th St, somewhat to the N of the old *palaestra* wall. It was on a slightly irregular line which significantly narrowed the street, although still leaving a vehicle-viable 3m carriageway. At its E end this meandering wall, averaging 0.98m thick and 30.3m long, closed off G St but, against the corner of block F1, incorporated a flight of ascending steps which clearly gave access from 8th St to the NE amphitheatre seating. At the time of excavation four steps survived, 1.55m wide, with 0.5m treads and 0.21m risers (PR 6, 73). Three survived in 2010, their angling indicating the stairs curved round towards the arena. The N wall also had another doorway (E' in the text: PR 6, 73–4), immediately behind the small room by the N arena door. It is not clear whether they communicated (as Brown thought likely: PR 6, 74), or whether (as he also pondered, and as seems more probable) the N street doorway was for another stair to the N seating.

Brown reports that 'the area enclosed by these external walls was for the most part filled in with earth, ashes, and debris to the height of the arena wall, and on the platform thus obtained wooden stagings were put up to seat the

spectators. The fill and stagings did not, however, completely surround the arena, but would seem to have been restricted to the triangular areas in the northeast and southwest corners of the external rectangles (sic)' (PR 6, 73). These wooden stagings were reasonable inferences on Brown's part: no direct traces of them are mentioned or illustrated. Any timber structure resting on sill-beams need have left no trace, while the excavators may well not have recognized post-pits. However, Brown probably significantly underestimated the extent of the N seating.

The S seating block was constructed largely on the foundations provided by the W rooms of the old *palaestra*, and the walls of the *frigidarium*, the N doorway of which was blocked with mud brick (PR 6, 75), increasing its strength to take the load of the seating. The NW limit of the S seating is fairly clear, in the form of a new mud-brick wall dividing 14 and 30 on a line radial to the arena wall, and flanked by a staircase giving access to the S seating from the 8th/F St junction (PR 6, 73). This had 11 steps when found, 1.08m wide, with 220mm treads and 200mm risers. There was another staircase on the S side, inside door C. This 'opened from the arena on a space roughly 2.50m square dug at the foot of the stair through the floor of corridor 21... its sides roughly faced with mud-brick with a plaster rendering. Doorway C could thus be entered and its stairway gained only by traversing the arena' (PR 6, 74). This stair, 1.3m wide, was broken off at the seventh step (PR 6, 73–4). Brown concluded that this stair marked the E limit of this SW seating block, which seems to be a serious misreading and underestimate of the likely extent of the S spectators' area.

The stair by C is unlikely to have provided seating access for the mass of spectators, who, as Brown notes, would have had to access their seats via the arena. He raised, but then rejected, the alternative possibility that another stub of wall found just S of the small E-side arena gate B was the other limit of the S seating block, with a third, now lost, stair like that surviving in 30 (PR 6, 74). However, this seems to me very likely to be the correct interpretation, with seating continuing E of door C, supported by the bulk of the derelict and partially demolished bathing suite. Other details of the plan clearly support this hypothesis.

The stair by arena door C is best explained in connection with the amphitheatre inscription which was placed above this door, indicating its special status. It is suggested that it provided access from the arena not to the general seating banks, but to special accommodation, probably a box for the presiding official who could arrive ceremoniously via the arena to take his place here, axially on the easily shaded S side of the arena, with the best, sunlit view of the action below. With respect to the N–S axis of the arena which the inscription over door C emphasized, the spur-wall on the E side of the arena by door B indeed exactly mirrors the wall of 30 on the W side of the arena (Fig. 5.46). Further, extrapolating its line to the E corresponds with the point beyond

which the substantial E boundary wall of block F3 had been demolished to ground level. This line, then, surely marked the E limit of the S seating bank. The result would have been a strikingly symmetrical arrangement either side of arena door C, with the inferred president's box above it flanked by mirror-image blocks of seating—itself an argument favouring the interpretation, since arena games were about visual spectacle.

To access the E part of the S seating, there was indeed space between arena gate B and the end wall of the seating for a stair mirroring that S of gate D, as Brown had pondered. This area was already extensively damaged on excavation, perhaps due to post-abandonment robbing, so absence of surviving traces of steps is no serious objection. Alternatively, the putative stair may not have existed, because the E end of the block could have been entered, in a more easily controlled way, via corridor 7, which was provided with the late latrine 29, and perhaps stairs built into, e.g., 8. Further timber stairs to the S seating may have existed, perhaps from F St into 11, or within the former *frigidarium*, 1.

It seems, then, that the S seating block actually ran all the way from F St to G St, more than twice Brown's estimate. The extent of seating on the N side of the arena is harder to establish, but there are good reasons to suggest that this, too, was actually symmetrical and again far larger than Brown thought (Fig. 5.46). Brown believed that the N seating was a small triangular area bounded by the arena, the new 8th St retaining wall, and on the E by the old *palaestra* wall facing onto G St. However, the carrying of the new N wall across G St, with its built-in ascending stair case, suggests that the seating also extended across the former line of G St street, and was raised against the frontage of buildings in F1—already larger than Brown imagined. No wall across G St was identified marking the S limit of seating over the street line. Perhaps rather than being infilled with loose rubble, lateral thrust of which would have required a substantial retaining wall across the former street, the seating here was entirely timber-built. The excavators observed no post-pits, although they were not looking for them. The substructure may anyway have been box-framed on sill beams, and was likely supported by tying it into the massive property wall forming the street frontage of F1. W of arena door E and street door E', the narrow space between the arena and the N boundary wall would seem to preclude much if any seating there. However, there are reasons to argue otherwise.

Considerable care seems to have been taken to lay out the entire S seating block symmetrically around the axis of door C, and the inferred presidential box above it. It may therefore be suggested that a similar effort was undertaken to make the seating opposite symmetrical, about the N arena doorway E (Fig. 5.46). It was argued above that the E part of the seating extended over the line of the definitively blocked G St, and was supported by timbering anchored into the thick house wall along the street frontage of block F1. Mirroring the

extent of the seating on the W side would have required carrying the seating out over the line of 8th St, a key route within the base which the N amphitheatre wall shows was narrowed somewhat, but kept open. It is argued that behind and W of arena entrance E, the seating was supported on timberwork resting on the N perimeter wall of block F3, and spanning the narrowed 8th St to anchorages in the relatively high and massive S wall of the great E4 house opposite, already occupied by the garrison. 8th St would then in effect have run through a tunnel beneath the seating structure. Carrying theatre and amphitheatre seating over passages was routine in the Roman world, albeit best known as concrete vaults, but timber amphitheatres are also attested (below). Reconstructing the elevation at this point indicates that it would have been perfectly feasible to leave headroom on the line of 8th St adequate for vehicles and mounted men (Fig. 5.49). Such a seating arrangement would help explain the line—and indeed the need for—the new N boundary wall narrowing 8th St: it both directly supported the seat timbering, and reduced the span required for the hypothetical cross-street superstructure. The proposed seating over 8th St could have been accessed via the stair at E' hypothesized by Brown (PR 6, 74).

It is suggested that the W end of this hypothetical seating area was marked by the observed position of the end of the 8th St wall. Inferring the end line of the seating block radiating perpendicularly from the adjacent point on the arena wall would define the N side of area 30, W of the arena. This area, lacking suitable masonry support, is unlikely to have had any seating over it, but comprised an open space W of the arena. W arena door D lies exactly in the centre of the stretch of arena wall between the attested steps to the S seating at one end, and the inferred end of the N seating block on the other.

Applying symmetry around the N–S amphitheatre axis to this reconstruction of the W side suggests a position for the E end of the N seating block on G St. Plotting this suggests the N extent of the 'plaza' on G St outside to the E gates of the arena. It turns out that the wide arena gate A is exactly central within this hypothetical space, again consistent with a carefully thought-out scheme of visual symmetries.

The remaining unknown is the horizontal depth of the seating banks, radially from the arena wall. It is conjectured that this was probably the same module used for laying out the arena: 20 Roman feet. This depth makes sense of certain features of the plan, e.g. the addition of a stretch of wall in F St on the W side of the amphitheatre outside 14, which Brown noted, but could not explain (PR 6, 71). Here a 20-ft deep seating bank would have overhung the road-line, requiring support. It also makes sense in terms of the reconstructed geometry of supporting walls at the E end, and would make good use of the abandoned heated bath suite as a support. On the N side, 20ft seating depth is also neatly consistent with the reconstructed extent proposed above, with seating reaching to the walls of E4 and F1.

On these dimensions, the N seating block may be estimated to have covered c.220m², while the S seating was c.280 m², totalling c.500 m². This is more than twice the area Brown supposed, although it is still not a very large area, and with three seated people per square metre could hold 1,500 people, considerably more than previously estimated (PR 6, 76). However, it is conceivable that the S seating bank over the solid bath building, at least, was in parts deeper than 20ft, while many more people could have watched events from the roofs of the buildings in E4 and F1.

The proposed new symmetrical plan makes sense within the existing confines of the available space, and represents a clever adaptation of common amphitheatre layout to difficult circumstances. Even if it was built quickly and apparently cheaply, and perhaps looked a mess of timbering and semi-ruinous masonry when approached from the S, it economically employed pre-existing and surrounding structures to create what was internally a visually impressive public space.

Dating

The dedication of the amphitheatre is fixed by an inscription, found fallen from above entrance C on the S side of the arena. This *tabula ansata* gives a consular date equating to AD 216, so it is presumed the facility was built during the foregoing year or two. The text records that the '*anpytaetr[u]m*' (sic: line 5) was built by *vexillarii* of *legio IV Scythica* and, apparently, *III Cyrenaica* (the latter restored from the letter 'R': PR 6, 76–80, no. 630).

Discussion

Even in the form proposed, significantly grander than envisaged by the excavators, Dura's amphitheatre looks a sorry specimen when compared with many urban arenas of the Mediterranean world. It is also much smaller than the c.100m-long amphitheatre identified from an early air photograph at Palmyra (Hammad 2007), which if more were known about it, could provide an especially interesting comparator. The Dura arena's claims to distinction rest on it being the easternmost custom-built amphitheatre so far known (Dodge 2009, fig. 4.1), complete with epigraphic evidence it was actually so called, and on its late date of construction: it was also probably one of the last amphitheatres ever built. Discovery of an amphitheatre at Bostra (Al-Mougdad et al. 1990; Dentzer 2002), base of *legio III Cyrenaica* which apparently helped build the Dura one, raises the likelihood that eastern legionary bases commonly possessed them. Another may one day be discovered at Singara, base of *legio I Parthica*, which would likely be as late as Dura's, and rob it of its easternmost title.

Small amphitheatres also existed at some European auxiliary fort sites. A timber example was recently excavated at Künzing (Sommer, S. 2009, 50–1). At 34.6 × 29.6m, the arena

of this facility for a single auxiliary unit is substantially larger than Dura's, reinforcing the impression that the latter was small relative to the size of the military force based in the city. Indeed its remains seemed so puny, rough, and ready that Brown regarded the building as a temporary structure (PR 6, 72).

However, such a negative, minimizing view of the structure is unwarranted. Dura's amphitheatre is rather roughly constructed, but in this looks no less solid or permanent than many other buildings modified or erected *de novo* by the military, including the bizarrely built A1 Temple of the Roman Archers. And indeed its small size was due to constraints of the available site.

The amphitheatre was, it appears, an opportunistic afterthought, an addition to the base plan after the F3 bath burned—although the apparently radical change of function for the site may be illusory. The decision to change overt function rather than rebuild was perhaps facilitated by existence of multiple alternative baths elsewhere. After the fire, the *palaestra* site already constituted a depression relative to the surrounding streets (arenas are often below surrounding ground level), and hemmed in lofty existing masonry structures: the derelict but still standing F3 bathing suite, the thick external wall, two storeys high, of the E4 house to the N, and the equally massive, and it is suggested equally lofty, W street frontage of block F1. This setting alone may have suggested conversion to an amphitheatre, but perhaps it was also prompted by the way the bath's facilities had been evolving before the fire. Its *palaestra*, colonnades, and surrounding rooftops were perhaps already in use as a makeshift venue for gladiatorial combats (attested at Dura; Fig. 5.50 and p. 284) and other entertainment events. When a conflagration created the opportunity an architect, clearly familiar with

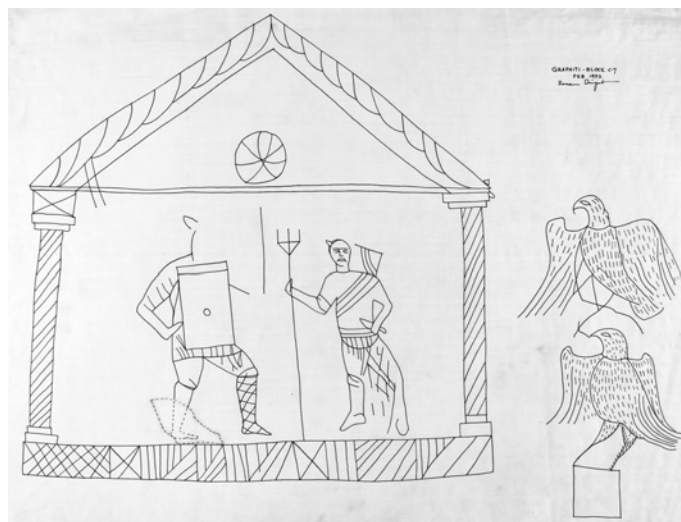


Fig. 5.50. Drawing of a graffito showing gladiators found in block C7.

amphitheatre layouts, came up with a novel and effective way of creating a quite imposing public space in this confined and unpromising location, with seating blocks spanning adjacent road lines. While this had to accommodate the major arteries of F and 8th Sts, the adjacent stretch of G St could be incorporated, as this axis had already been blocked, both at 4th to the S by block G3 in the agora, and by the military to the N at 10th St.

The range of possible uses for the amphitheatre is discussed in Part III (p. 284).

PROBABLE *HORREA* IN J6 AND J5

Horrea—granaries and more general food stores—are mentioned in the Dura papyri, guarded as would be expected (*P. Dura* 361, 17; 363, 3). In European fort sites, *horrea* are often easily recognizable as long rectangular buildings with raised floors for air circulation and pest control, their stone walls heavily buttressed against the outward pressure of piled grain, with a door at one end perhaps with evidence of a loading platform. These were of highly variable dimensions. Examples identified in legionary bases ranged upwards from 15m wide by 30–50m long (von Petrikovits 1975, 82–5, Bild 19). The auxiliary fort site at South Shields, UK, was converted to a supply base for Severus' Scottish war, and largely filled with such granaries in the years immediately before the Dura *principia* was built. These were 7–8m wide, and 25–30m long. However, other forms are known. The *horreum* of the Tetrarchic military base at Palmyra comprised an irregular quadrilateral building c.45 × c.20m, constructed against a corner of the camp wall (Gawlikowski 1987a; Gawlikowski 1987b, Abb. 1). Such variability may explain why these important structures are still not certainly located at Dura. However, good candidates lie in J6 and J5 (Fig. 5.1).

Limited trenching and hints in the geophysics suggest there were, or had been, two square civil houses at the S end of J6 fronting onto 8th St, mirroring those opposite in K5. However, the N half of the block was exceptionally flat in surface and uniform in vegetation in 2010, with no surface indications of internal walls. Neither did magnetometry reveal patterns of walls within the area, contrasting with the neighbouring J4, K3, and K5; it picked up little more than Yale's trenching. It seems likely that before the 160s J6 had never been built up, except for its S frontage.

However, in the N part of the block, Yale's wall chasing outlined the E ends of two unusual-looking structures. Their W parts remain undefined. These seem to have been large free-standing rectangular stone-founded buildings c.13m wide and up to c.37m long, without entrances in the exposed parts, apparently with a street-width gap between them. In size and shape, the hypothesized structures are wholly plausible as a pair of military *horrea*, with entrances on A St. Their location is suitable, deep inside the base and protected by

the camp wall, but with controlled access via the nearby B St gate.

What seems to be a third rather wider rectangle to their S is defined on the W side of the block. There are also two projections on the W in A St here, one recorded by Detweiler. The other, just to the S, comprising walls of gypsum slabs on edge, was visible on the ground in 2010, but apparently burrowed through by wall-chasing. These could conceivably be loading platforms for another store building.

To the N of J6, in the nominal grid area of J5, it appears that only the southern third or so of the block was built up. Magnetometry detected walls only within the somewhat irregular area defined by 1930s block-defining trenches. Otherwise, the notional block footprint seems in practice to have been part of the open area around the Temple of Bêl.

The remains in J5 outlined by Yale wall-chasing appear consistent with two abutting rectangular structures, the N slightly shorter on the W, a layout perhaps governed by the converging, off-grid course of city wall and internal streets in this area. It is suggested that these are further *horrea* like those hypothesized just to the S in J6. The projecting structure on the N side of the N rectangle, and another possible one on the W, might again have been loading platforms.

In blocks J5 and J6, then, we may see a row of substantial store buildings, although this hypothesis remains to be tested.

THE MITHRAEUM, J7

Discovery, Excavation, Recording, and Publication

The Mithraeum (Figs 5.51 and 5.52) is one of the most spectacular and best-known buildings at Dura, but 'unfortunately... also one of the least studied and most badly published'. A situation which a new international research group plans to rectify (Dirven 2016, 17 n. 1). Its stratigraphic and spatial relations are critical for understanding development of the military base, especially its early phases.

It was found in the seventh season, February 1934 when du Mesnil and Comstock were conducting 'systematic excavations along the... sloping embankment... between Tower 24 and... Tower 23' (*PR* 7/8, 62). Finding a Mithraeum was especially close to Cumont's heart and both he and Rostovtzeff travelled to Dura to take part in the excavation of this, one of the most valued finds of the entire Yale project (Fig. 1.9). To ensure the paintings and sculptural remains did not succumb to weather or vandalism, the building was dismantled to allow their removal. This gave Pearson the chance to examine the architectural remains and sequence in more detail, in further work conducted by him and du Mesnil later in 1934, early in the eighth season (*PR* 7/8, 62).

The temple received rapid preliminary publications, by Cumont (1934) and Rostovtzeff (1934), with a multi-authored

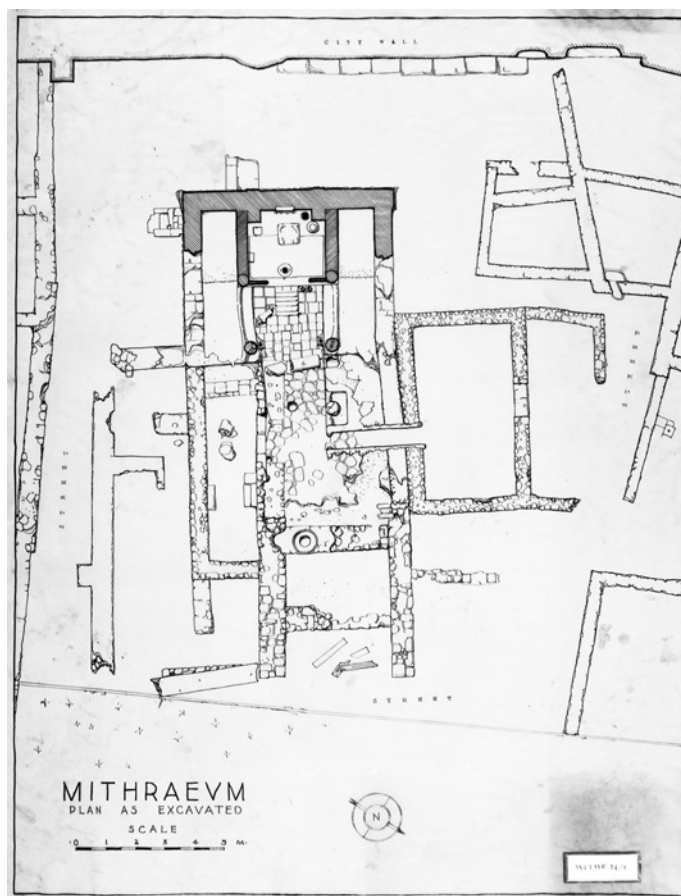


Fig. 5.51. Pearson's inked plan of the Mithraeum as excavated, published as *PR* 7/8, fig. 30.

account following (*PR* 7/8, 62–134). By the time the last appeared in 1939 the best-preserved section of the temple with its paintings and reliefs had been shipped to Yale, and was already reconstructed in the Art Gallery (*PR* 7/8, 62). A dedicated *Final Report* volume was projected, but never written. Shortly before his death in 1947 Cumont drafted his contribution to the volume, which lay in the Yale archive until an English translation, edited by Francis, was published (Cumont 1975, 153). For his own research Francis apparently borrowed the archival material on the graffiti, and also 'Pearson's unpublished excavation notes' from YUAG (Francis 1975, 427 n. 14), but following his own tragically early death, their fate is unknown. Like the Christian building and the synagogue, the Mithraeum has continued to attract considerable research interest (e.g. Leriche 2001; Deleeuw 2011; Dirven, L. 2016; Gnoli 2016).

Space precludes more than a summary outline of the Mithraeum evidence here, where the focus is on its implications for understanding the wider military base and its history. At the time of writing, Lucinda Dirven and Matt McCarty are reviewing all the evidence for a new synthetic report on the temple in the context of the cult in Syria, and its significance for wider Mithraic studies (p. 129).

For spatial context see block J7 (Fig. 5.68: pp. 145–151).

Pre-Military Phases

Pre-Mithraeum buildings were attested by stretches of foundations of various constructional techniques interpreted as representing three phases of pre-Roman buildings, those deemed latest made in normal Durene mortared rubble.



Fig. 5.52. The Mithraeum under excavation, before removal of the paintings. Note the plane table at R.

Although the evidence is very fragmentary it looks as though these early buildings were squeezed into the space between A St and Wall St, which narrowed sharply towards the N where the city wall made a turn. These remains were taken to suggest 'a large private house and two smaller ones', buildings 'presumably in ruins at the time of construction of the Early Mithraeum, whose walls have an independent orientation' (*PR* 7/8, 63–4). However, this apparently contradicts other information (below).

Temple Phasing and Chronology

The excavators identified three phases in the history of the temple (*PR* 7/8, 63).

1. The initial shrine was 'a small chamber opening from a private house', supposedly dated by a small bas-relief (Figs 5.53 and 5.54: *PR* 7/8, 83–4, no. 845; Dirven 1999,

293–4, nos. 27 and 28). The latter was dated to AD 168 (now redated to 169: p. 242), very soon after the presumed date of Roman take-over. It was accompanied by a second relief with an inscription dating to 170–1 (*PR* 7/8, 84, no. 846; Dirven 1999, 295–7, no. 29).

2. The early shrine 'was demolished and rebuilt in an enlarged form, in or about 210 A.D.', a date derived from another inscription (Fig. 5.55; *PR* 7/8, 85, no. 847). This was of flimsy, non-Durene construction, being built of mud brick on rubble-in-mud foundations with relatively poor-quality internal plasterwork (*PR* 7/8, 62–3).
3. It was subsequently again heavily overhauled and enlarged 'at some point in the remaining forty-five years of existence', speculated to have occurred sometime around 240.

The structure was then engulfed by the anti-siege embankment c.254, preserving its W end to almost full height, but resulting in demolition of its E end.

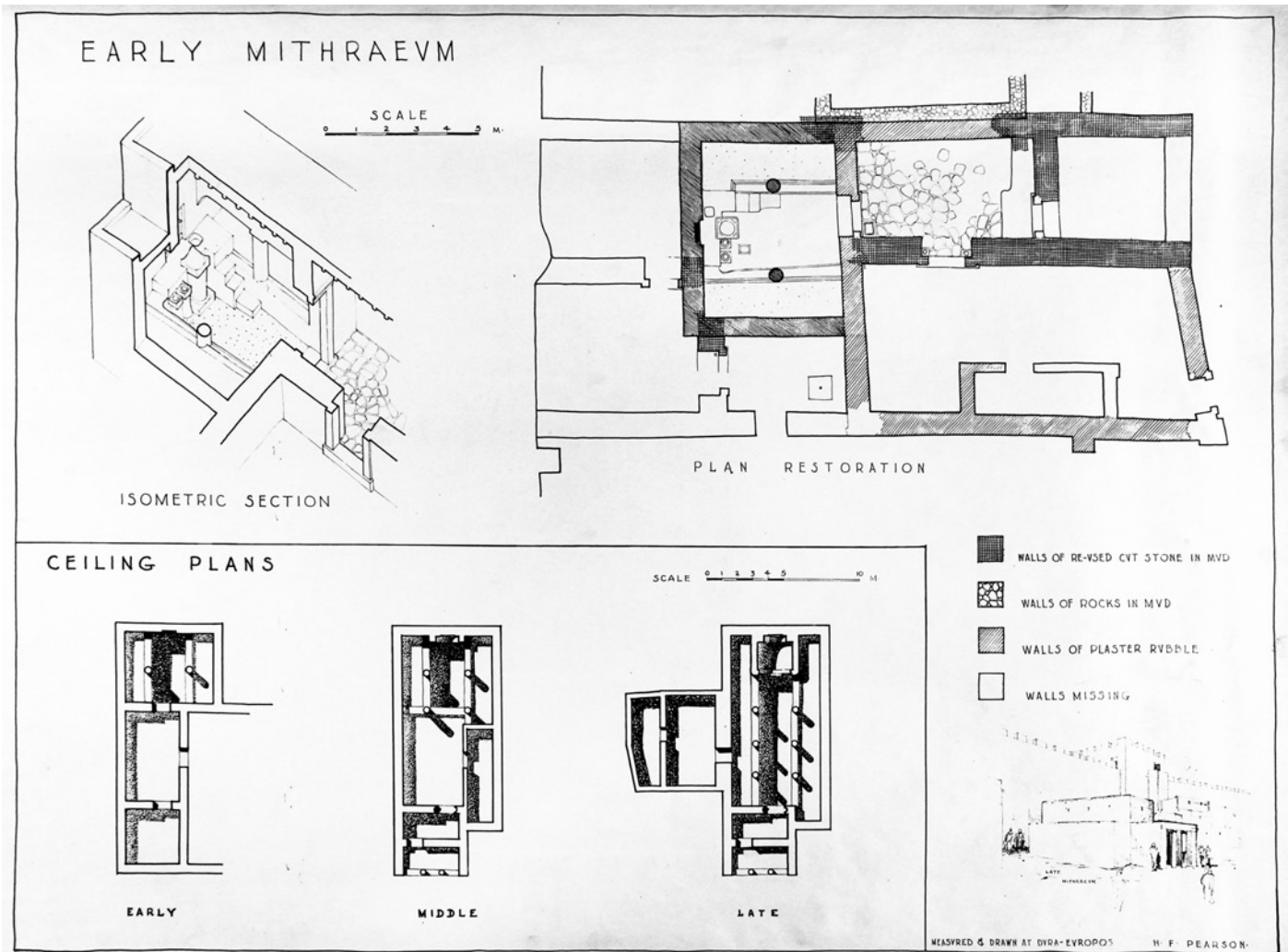


Fig. 5.53. The 'Early Mithraeum' as reconstructed by the Yale expedition (note walls between it and the city defences), with ceiling plans of the Early, Middle, and Late phases of the temple. Drawing by Henry Pearson, published as *PR* 7/8, fig. 32.



Fig. 5.54. The first Mithras relief, AD 169.



Fig. 5.55. Inscription 847, commemorating 'restoration' of the Mithraeum in AD 209–10.

Cumont, a pioneer of Mithraic research, was delighted at the discovery of this sanctuary. After studying it he came to the conclusion that its Palmyrene officer founders had become initiates through their association with the Roman garrison in their home city (Cumont 1975, 162, 205), although others suggested it may have been through earlier service in Roman armies, probably on the Danube (Welles 1951, 254; Francis 1975, 430–1; Downey 2000, 164).

The published account of the remains is not entirely clear, but it was argued that the first Mithraeum (Fig. 5.53) comprised a room 'constructed in' an existing, standing Durene house, entered from a room to the E which opened onto a court to its S (PR 7/8, 64, and fig. 32). Perhaps this first shrine was built within the house taken over as the residence of the Palmyrene archer commanders who dedicated it. A sanctuary established in an intact house on Wall St would parallel the cases of the synagogue and Christian building. If the first military use of the house was indeed both officer's residence and shrine, it would also prefigure the situation identified in the E4 house and probably that around E8–12.

Not mentioned in the text, but shown in drawings (Fig. 5.53; PR 7/8, fig. 32) are walls connecting the Early Mithraeum building to the city wall. These, labelled 'walls missing', apparently attest a three-room unit built off the back of the Mithraeum/house, on the line of Wall St. They correspond to a line of rafter sockets in the city wall (Fig. 5.69), confirming that at some stage the line of Wall St was blocked by housing at this point—as it also was to N and S by the rough military housing built against the city wall in J7. This links the Mithraeum sequence to that of the surrounding military accommodation (pp. 145–151).

Subsequently the entire Mithraeum/house was supposedly demolished, and a new structure built, now entirely a temple. Its W end reused the focus of the first shrine, the Ethpeni and Zenobius reliefs argued to have originally graced the Early Mithraeum, being retained in the new sanctuary; the larger of the two had fragments of earlier plaster adhering to it. However, the new nave and porch only partly preserved elements of the former structure in being asymmetric. The excavators believed that, as 'earlier foundations around [it] were buried' by accumulations of earth, the structure was at this time free-standing with open space around, except on the N side where there was a separate, non-communicating two-room unit (PR 7/8, 72). This phase was labelled the 'Middle Mithraeum', and ascribed to c.210 on the basis of an inscription, found in fragments but almost complete (Fig. 5.55; PR 7/8, 85–6, pl. XLIX, 1, no. 847; Edwell 2008, 127–8). It records the '*templum...rest(itutum)*' by Antoninus Valentinus, *praepositus* of vexillations of *legiones IV Scythica* and *XVI Flavia Firma*. The date was 209–11 on imperial titles. This rebuild was plausibly seen as part of the major base expansion and consolidation around that time. However, crucially, the commemorative text was found in 4 fragments 'in the fill', presumably demolition debris associated with construction of the rampart; they were not found *in situ* (PR 7/8, 85); the text's ascription to the 'Middle Mithraeum' phase remains an inference.

According to the excavators, the last phase did not involve full demolition, but re-roofing and other alterations including making the nave more symmetrical with additional columns. Further, 'two chambers to the north of the building, the early history of which is obscure, were joined to the Mithraeum, a narrow passageway being cut through the benches leading to a newly pierced doorway' (PR 7/8, 76).

They argued that the Late Mithraeum probably only had a life of about fifteen years from c.240–54, although this was guesswork, and they recorded, significantly, 'many... signs of alterations after the late period decorations were finished'. Among other changes 'the faces and tops of the benches were replastered several times' (PR 7/8, 80) before final destruction. This sounds difficult to reconcile with a use-life of just fifteen years. The possibility must be considered that the '*templum...rest(itutum)*' inscription actually refers to the

'Late Mithraeum', which therefore existed for longer than was thought, pushing the 'Middle Mithraeum' phase back perhaps into the later second century.

Another important combined stratigraphic and epigraphic argument was made for the sequence and supposed dating of the Middle Mithraeum. It was that 'the earliest plaster coat of the four columns of the Middle Mithraeum had the same painted decoration of garlands and *taeniae* which occur also on the third plaster coat of the main altar. This shows that the altar—a constituent part of the Early Mithraeum—existed long before the four columns of the Middle Mithraeum were built and plastered' (PR 7/8, 86). This first plastering of the [new Middle Mithraeum] columns 'was found literally covered with painted and scratched inscriptions... containing hundreds of names' (PR 7/8, 116–28; Fig. 5.56), although these attested 'barely a hundred' *different* names, due to multiple recurrences of examples common at Dura like Mocimus, Monimus, and Malchus, which could represent the same individual or several; about 20 per cent were names of Semitic origin like these, 80 per cent Greek or Latin (Francis 1975, 432–5). The names were assumed generally to

attest a mix of legionaries and auxiliaries of the garrison, although only a handful specified the individual's unit, e.g. Maximus, *scaenicus*—actor, or possibly in charge of tents—of *legio IV Scythica* (PR 7/8, 121, no. 860). Just one, a Monimus, was specifically identified as belonging to *cohors XX Palmyrenorum* (Francis 1975, 434), although many other names were assumed to belong to men of that unit. There was no mention of *cohors II Ulpia*, which the excavators thought, probably erroneously, had 'occupied the town alone until the time of Septimius and Caracalla' (PR 7/8, 86–7), at which time it apparently departed. However, this is in itself a weak argument; specific proof that men of *cohors XX Palmyrenorum* frequented the temple relies on a single graffito, so absence of reference to *II Ulpia* here could easily be due to statistical chance.

Overall, the received interpretations are very problematic, so the new study by Dirven and McCarty is keenly awaited. Previewing their conclusions in a forthcoming paper, they will argue that the Mithraeum was substantial from the outset, with just two constructional phases, in the late 160s and c.210 (Dirven and McCarty forthcoming).

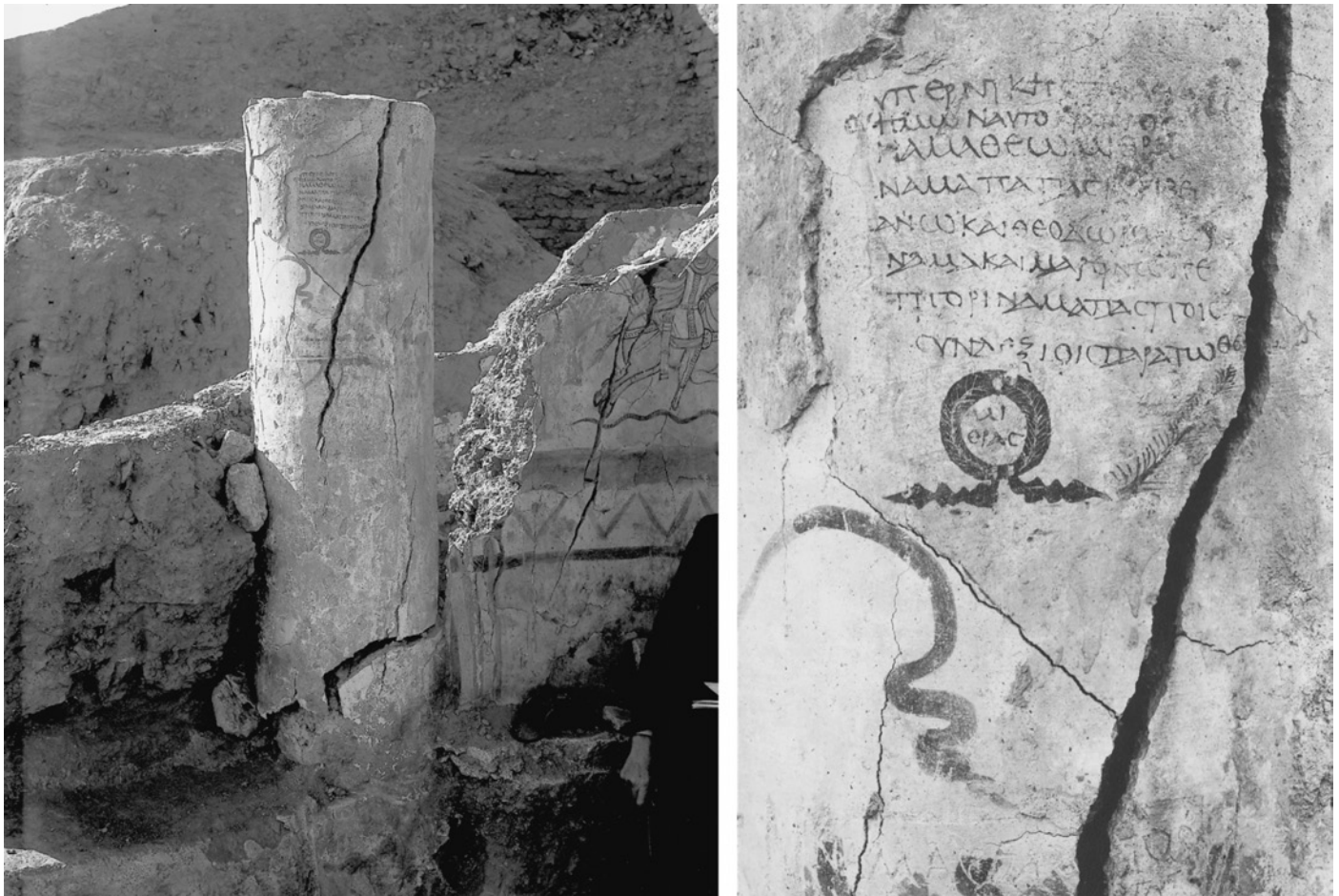


Fig. 5.56. Column with dipinti and graffiti in the Mithraeum.

THE 'CAMP WALL'

Discovery, Excavation, and Publication

In the western part of the city, the southern perimeter of the Roman military base was defined by a substantial boundary wall, usually referred to as the 'camp wall' (Figs 5.1 and 5.57). Its form indicates that its purpose was security—to control illicit movement into or out of the W base area—rather than defence, although evidence found in 2005 indicated that its line was used for a last stand when the city fell. The purpose of the wall is discussed in more detail in Part III (p. 278).

Although entirely of mud brick, the wall survived well immediately below the modern ground surface and, once discovered, was revealed along almost its entire length, traced from the city defences to D St. Curiously, there is no evidence that it ever extended any further and certainly did not fully enclose the military base.

Its discovery and excavation by Brown was noted by du Mesnil (du Mesnil 1935, 276), and briefly outlined by Gilliam who wrote that the 'Roman camp... was at least partially separated from the rest of the city by a mud-brick wall, 1.65m wide' traced from the city wall for four blocks with a gate on B St (*PR* 9.3, 69). No archival records survive of its excavation except for a sketch of its junction with the city wall, and its appearance in a few photographs and on Detweiler's city map (Pl. VI). The last shows it was bisected by a simple gate at B St. On the W side of this gate was what appears to be the foundation of a stair built against the E wall



Fig. 5.57. The line of the camp wall after excavation, seen from the city wall by Tower 21 looking E. In the foreground, the wall can clearly be seen built through the rooms forming the S ranges of houses K5-A (largely excavated in the centre of the image) and K5-B (L foreground, mostly unexcavated and covered with spoil). Beyond these houses and B St, the wall can be seen continuing to D St.

of K5-A, giving access to the top of the wall at about its midpoint. Detweiler's map, and the preparatory drawings of which photographs also survive, contain a surveying error: they show a distinct kink in the wall at A St, although in reality the camp wall was effectively straight (Fig. 5.57).

The finds registers contain dated entries for items coming from K1, K3, K5, and K7, showing the wall was dug in two stages. The stretch across K7 and K5 to B St was cleared in the seventh season, following discovery of the junction of the wall with the city defences while clearing the K7 embankment. Its course to the E was subsequently picked up again by trenches revealing the street frontages of K7 and K5, where the camp boundary crossed (and blocked) A St. The excavators then followed its line eastwards across K5 to the B St gate. During the eighth season the wall was followed E across K3, C St, and K1 to D St. This second phase of work was apparently undertaken by Brown's team at the same time as the clearing of the K5 house through which it ran.

A short stretch of wall in K5 was re-examined by Gelin in 1998 (2000, 308–11, figs 167–8). In 2005 the writer re-examined Gelin's work and the nearby B St gate, and conducted a small excavation around the apparent end of the wall on D St (below, pp. 133–134).

Description

The wall, traced for c.160m, was described as 1.65m wide in the brief publication references (*PR* 9, 3, 69; du Mesnil 1935, 276), although the site sketch made by Detweiler, preserved at Yale and identified by Gelin (2000, 309), records 1.55m, a width confirmed by Gelin, who found it was constructed of grey mud bricks, averaging $426 \times 329 \times 82$ mm, set in grey mud mortar (Gelin 2000, 308–11, figs 167–8).

The original height of the wall is indicated by evidence from its point of origin, abutting the city defences. Detweiler's sketch plan shows that the inner face of the mud-brick wall met the stone city wall 1.3m S of the corner of Tower 21. It was in direct contact with one of the piers of a mud-brick staircase to the city wall on its S side. A photo (Fig. 5.58, L), taken when this stretch of Wall Street was excavated in the seventh season, shows the then-perfectly preserved rampart staircase, from the substructure of which may be seen projecting the stub of the camp wall, already otherwise demolished at this point when the area was engulfed by the late earthen rampart. Later photos, showing this junction point after removal of most of the staircase (Figs 5.58, R and 5.59), reveal that the camp wall certainly butted against the city wall, with the staircase subsequently built against and over it. The stair was also built from red mud bricks, larger than the grey bricks of the camp wall. Further, the stair foundation was built from a markedly higher level, about 1.4m of fill having accumulated in Wall St against the S side of the camp wall before it was built. Gelin dated this and similar rampart stairs to c.230 (Gelin 2000, 321, 335).



Fig. 5.58. Origin of the camp wall against the city wall by Tower 21. L, the ragged broken stub of the camp wall is visible emerging from the furthest pier of the subsequently built city wall access stair. Note the beam hole in the corner of Tower 21 behind, at about the same height as the top of the camp wall stub. R, the base of the wall stair pier (L) and of the camp wall (R) after partial removal of both, and sectioning of the foundation of the latter. The camp wall was clearly built first, right up to the city wall. The stair was then built in larger bricks, after more than a metre of deposit had accumulated against the camp wall.

On the basis of the documentary and photographic evidence, reconstruction of its origin point, and the overlying rampart stair (Fig. 5.59) indicates that the camp wall had stood at least 5.2m above the floor level of the military buildings in Wall St when the stair was built, its top at about the level of the adjacent roof-beam holes in the city wall and Tower 21 itself. This is roughly consistent with evidence at B St, where a foundation built against the side of house K5-A likely attests a stair giving access to the top of the wall. As it was about 6m long, and angles of the later wall stairs were about 40–45°, this indicates the camp wall stood around 5.5–6m tall at B St, and more like 6.5–7m above the floor levels inside the house, which were well below street level.

The Wall from the City Defences to B St

In 2010 the wall was not visible across K7 between its origin on the line of Wall St and A St, which air photos and the Detweiler survey show it blocked off. A substantial length of wall (c.40m) was clearly discernible right across K5 to B St, as revealed by Yale. Here it was built in lengths between the intact mortared *djuss*-rubble wall-bases of the southern

ranges of rooms belonging to the pair of houses forming the northern end of the block, K5-B and K5-A (pp. 153–155). It was re-examined inside K5-A and at B St in 2005. Where the wall ran across K5, the house walls survived up to c.1.2m high, the greyish mud brick of the camp wall, weathered to a rounded profile, standing to at least a metre (Fig. 5.60).

It seems that, when the wall was built, the rooms through which it was to pass were unroofed and the mud-brick superstructures of the walls demolished. However, the mortared-rubble wall-bases were certainly left intact because, at least on the camp side, they were intended for immediate reuse. Stretches of mud-brick walling were constructed within each half-demolished room, and then above the level of the wall-bases were continued upwards as a continuous curtain. At least here in K5, there will have been a clear space of less than two metres between the wall's face and the walls of the adjacent civilian housing outside the base, a potentially jumpable gap, unless the camp wall extended significantly above roof level, which it apparently did (Fig. 5.71, bottom). Street level was roughly a metre above the floor level of the K5 houses, but it is unclear whether the abandoned portions of rooms on the S side of the new wall were deliberately filled

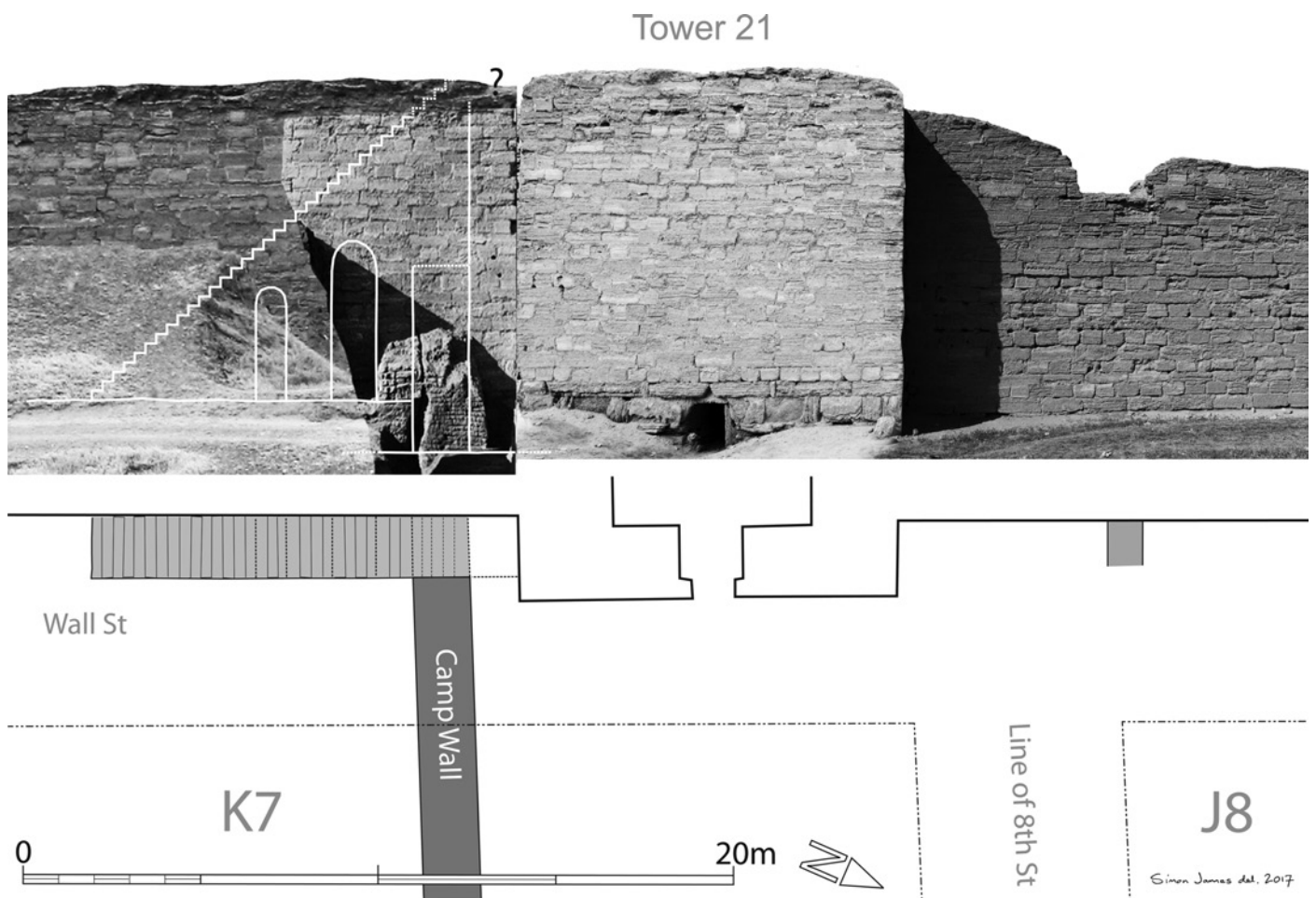


Fig. 5.59. Plan and corrected photographic elevation of the area around Tower 21, and the origin point of the camp wall. Based on Detweiler's archive sketch plan and measurements, observations in 2005–10, and archive photographs.



Fig. 5.60. L, the main S room of house K5-A, seen from the SW, with the mass of the camp wall running through it. Gelin's excavation is bottom L, where mud-brick coursing is visible. R, view along the stretch of camp wall built within the main room of K5 with Gelin's excavation in the foreground, and the point of origin of the camp wall in the distance, just L of Tower 21.

in to street level to form a patrol/maintenance lane along the outer face of the wall, or were left open to enhance the height of the obstacle.

The B St Gate

At B St, the wall was interrupted by a gate (PR 9.3, 69; Fig. 5.71). Excavated by Yale, the piers projecting into the road on each side were still clearly visible in 2005. They comprised bases of unmortared rubble with mud-brick superstructure. Some traces of the latter existed on the E side, where it was also clear that the pier was built up against the *djuss* plastering of the wall of the adjacent K3 house. Here the remains stood only c.200mm above the B St ground surface; however, the W pier was better preserved, and extended twice as far into the road, creating a narrowed portal and making space against the wall of K5 for the foundation of a small access stair to the wall top, surviving some 400mm high. At its junction with the wall of the K5 house the pier's stone foundation was topped with mud brick surviving to a total height of c.1m above the road surface. Detweiler's preparatory drawing for his city map show rebates in the piers, not discernible in 2005, but indicating provision of doors. There was probably a superstructure linking the E and W halves of the camp wall either side of D St, although whether this comprised timber beams over the gateway to brace the gate leaves or something more elaborate is unknown.

The gate piers left a carriageway c.3m wide, adequate for vehicles. Although it is likely that most movement of material in the region was via pack animals, i.e. donkeys, mules, and camels, wheeled vehicles were certainly used at Dura (PR 2, 10, pl. XXXVII,2). The reduced carriageway framed by the gate was displaced slightly towards the E side of B St, corresponding with a masonry projection into the road by K5-A's entrance at the junction with 8th St; the building likely served in part as the guard house for the gate, and, with its external stair, the occupants perhaps oversaw monitoring and maintenance of the wall as a whole.

The Wall from B St to D St

To the E of B St, across K3, spoil tips and a shallow depression mark the line of the Yale excavation following the wall, itself not visible in 2005–10 due to vegetation cover. An archive photo (Fig. 5.57) shows that only the N face of the wall was exposed across K3. Detweiler's survey indicates that, as would be expected, a number of N–S walls within the houses traversed by the camp wall were also identified. The photo suggests a very slight deviation of the wall E of B St, perhaps a small Roman surveying error or adaptation of its line to conform to existing property boundaries, as in K5. Magnetometry results (Pl. VIII) suggest that the N end of K3, like K5, comprised two squarish pre-existing houses, consistent with Detweiler's drawing of their street walls

showing one door onto C St for the W house, with one for the E house N onto 8th St. As in K5, the camp wall was presumably driven through the S ranges of these houses.

Detweiler's survey shows the wall definitely crossing and blocking C St, also indicated by vertical air photography (Fig. 1.12), but not directly verifiable in 2005–10 as the road line remained a vehicle track. Detweiler's plan shows C St also walled across at its junction with 8th St, again visible on the air photo. When the camp wall was created, the stump of C St was apparently built over as an extension of the housing along 8th St.

Across K1, the line of the wall remained clearly visible in 2005 as a strip of grey earth, lacking vegetation, flanked by shallow channels full of grass and linear spoil tips representing Yale's wall-chasing excavation along each side. Curiously, Detweiler's survey only shows walls running off the N side of the camp wall at and beyond K1's E street frontage on the line of D St, although the 1936 vertical air photo shows a couple more some metres to the W, within the block. Yale trenching also defined the rather irregular 8th St frontage of K1, evidently built up with housing. However, magnetometry (Pl. VIII) indicates that this block as a whole was rather unlike those that surrounded it, typically composed of around eight modest squarish properties. K1 was apparently dominated by one very large house built in its S half, similar to that in E4, with few discernible anomalies between this and the camp wall line in the N part of the block other than a boundary wall along D St. If the N part of K1 was mostly open ground, then there would have been few or no existing walls for the military builders to encounter. Military housing on K1's 8th St frontage may therefore have comprised newly built structures.

The End of the Wall at D St

Detweiler's survey drawings, and air photography (Fig. 1.12) indicate the excavators traced the camp wall right across D St, although on his city map he shows its end broken off just short of the frontage of F7. He also planned foundations on the carriageway of D St suggesting the stretch of road between the camp wall and 8th St had, like the equivalent stretch of C St, been filled in with buildings, except apparently for an access passage down the E side (had there been a small pedestrian door at the end of the camp wall?).

In 2005 the camp wall line was clearly visible across K1 to the E frontage of the block facing onto D St. Yale's spoil tips continued across the road and a few metres into block F7; however, the camp wall was not obvious on the surface of D St. Indeed, to judge from the B St evidence, even before excavation in the 1930s it is likely that surviving stratigraphy on the road surface would have been at most 100–200mm deep, since when it has been exposed to erosion. Notwithstanding, in 2005 two small trenches were opened to try to confirm the apparent closure of D St and, by excavating on

the wall's projected line beyond the E side of the road, to investigate whether it continued across F7 towards the amphitheatre (Fig. 5.61).

In the W part of the W trench, poorly preserved but identifiable mud bricks were encountered at less than 100mm depth, running up to, and apparently just across the line of the edge of the road. The base of the putative camp wall was visible across much of the road as a band of grey earth consistent with decayed mud brick of the colour seen in K5. However, it was indistinct and disturbed.

The best preserved area, around the junction of the wall line with the edge of D St, was also affected by disturbance. Here individual mud bricks were visible on the line of the street, but some were reddish, not consistent with those used elsewhere in the camp wall—or at least its initial construction. They likely represent a subsequent partial or complete rebuild from street level, apparently to a narrower gauge. The implication of this is that at some stage the wall across D St had been completely removed, and subsequently replaced.

A dramatic and quite unexpected find was a group of iron bodkin points representing wooden bolts from a light catapult (Figs 5.61 and 5.62). These still lay where they had been placed, in the corner formed by the K1 street frontage and the rebuilt camp wall. They indicate the location of an artillery piece positioned to shoot down D St, likely representing a last stand inside the military base area as the city fell.

Fig. 1.12 shows that the excavators did dig a small trench just inside the F7 boundary to see if they could pick up a continuation of the wall's N face heading further E, but then stopped, indicating they found nothing. To check whether the c wall actually continued across block F7, the eastern part of the 2005 E trench was excavated inside the street-frontage wall of the block. No trace of any continuation of the camp wall was encountered. From this point eastwards, either the



Fig. 5.62. The stash of artillery bolts by the camp wall at D St, 2005.

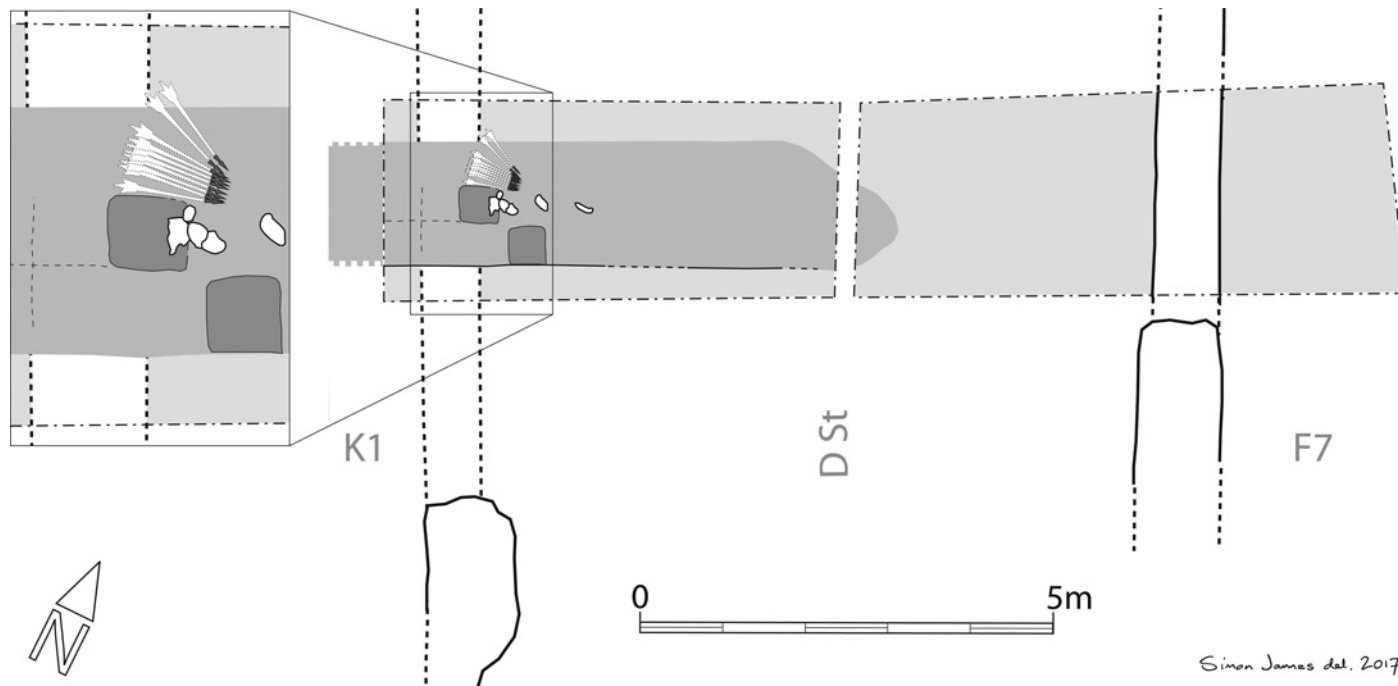


Fig. 5.61. The end of the camp wall at D St as excavated in 2005. The grey mud brick of the wall was visible across K1 and across the W part of D St, but not over the E side of the street, while a *sondage* inside the adjacent F7 building confirmed it did not continue further. On the W side of D St, red mud bricks and rubble suggested a late rebuild of the wall, while tips from a sheaf of wooden-shafted artillery bolts appear to attest a last stand inside the base area.

wall had been completely removed at a late stage or—much more likely—the camp boundary was always marked out in some other way.

The Date of the Wall

The excavators associated the wall with reinforcement of the garrison in Severan/Caracallan times (*PR* 9.3, 69). Subsequently, arguments for dating of the wall have focused on an inscription recorded by Brown, actually not found on or by the wall at all, but about 20m from its line in room 3 at the S end of block E8. This fragmentary Latin *tabula ansata* apparently bears a clear and precise consular date of 1 October 217; however, Welles, who published the inscription (in Frye et al. 1955, no. 59, 161–2; Gelin 2000, 309), noted this date could not be reconciled with the traces of imperial titles which had led Gilliam to date the text to 211–12 (*PR* 9.3, 130 n. 1). Indeed, nothing seems to be clear about the content, meaning and purpose of the text, which was partly erased. The three characters ‘pe... C’ were conjecturally expanded to ‘pedes C’, ‘100 feet’, which the excavators then connected with the camp wall, suggesting it recorded construction of a length thereof (Frye et al. 1955, 162). Yet this is tenuous in the extreme. It is far from certain that the characters denote ‘100 feet’, and even if they do there is no particular reason to think the inscription came from the camp wall as opposed to some other structure in or around the city.

Archaeological evidence, however, probably fits best with an early third-century date for the wall. Gelin observes its common construction with the mud brick used in the *principia* and the Palace, which would point to the 210s, and is also stratigraphically earlier than the city wall stair, one of a series Gelin dates to c.230 (above).

MILITARY HOUSING W OF G ST

Apart from the specific structures and zones described above, the rest of the built-up area inside the base W of G St is interpreted as constituting accommodation for the soldiers of the garrison and military dependents (Figs 5.1, 5.5, and 6.1). It is argued that in this area all pre-existing civil housing facing onto both sides of 8th St, and all to its N, was entirely evacuated of civilian occupants. The military housing comprised:

- complete city blocks S and E of the *principia* (E5, E6, and E8);
- complete blocks W of the *principia* (J1 to J4, perhaps part of J6);
- accommodation constructed against the Western defences (J7, J8, and a corner of K7);
- the N parts of blocks fronting the S side of 8th St.

With regard to the last of these, the two houses at the N end of K5 are known through excavation to have been turned into soldiers’ housing. Others show indications that they were treated in the same way as K5 (i.e. they were incorporated by the ‘camp wall’ and shows signs of military style alterations: K1, K3). More are reasonably inferred to have been in military hands (i.e. the northernmost properties in F5 and F7, on the military base side of the projected line linking the ‘camp wall’ with the amphitheatre).

We cannot rule out the possibility that some civilians with no direct personal connection to the garrison (e.g. temple sacristans) may have been allowed to continue to reside in the military quarter, but wherever we have detailed evidence in this part of the city, we see signs of characteristic adaptations and patterns of use new to Dura which fit with the idea of military housing, the term preferred here to ‘barracks’ because it apparently accommodated family units and not just unaccompanied soldiers. None of it comprises anything resembling the regular rectangular custom-built barrack blocks familiar from Roman forts on the European frontiers. At Dura, most consisted of adapted pre-existing Parthian-era civil housing. As such, this section should be read in conjunction with Baird’s *Inner Lives of Ancient Houses* which also has much to say about the military phase (Baird 2014).

In this NW part of the city, then, residential blocks were requisitioned and to highly variable degrees modified and adapted to the soldiers’ needs through construction of additional walls and partitions, rearrangement of doors, etc., and installation of plaster basins thought to be troughs for horses or pack animals, round ovens, and *dolia* probably for water storage. Some hitherto wholly or partially vacant areas in this peripheral part of town were fully built up for the first time by the military, in a characteristic manner notably different from earlier Durene architectural practice, comprising much more lightly built structures of irregular plan. At least along the city wall, some of this accommodation was two-storey. In a number of areas, irregular constructions spilled onto existing roadways, on D St, and F St, while between C and D St 10th St was severely reduced, and probably completely overbuilt. The implications of all this are discussed later (pp. 273–274).

Here the evidence of the individual city blocks and zones is presented, starting with examples of relatively simple house conversions.

MILITARY HOUSING S OF THE *PRINCIPIA*: E8

Of the blocks interpreted as converted to military accommodation, E8 is addressed first as the most thoroughly investigated and best recorded, providing the basis for interpreting the rest.

Excavation, Recording, and Publication

Block E8 is the largest single area of converted soldiers' housing explored at Dura (Fig. 5.63; Pl. XVII). It was entirely excavated by Frank Brown during the eighth season from December 1934, and by the end of January 1935 the inked publication plan was already completed—an index of the speed of 'clearance', going some way to explaining limitations of recording. However, the excavation was never published even in preliminary form. The very detailed plan only appeared as a tiny reduced tracing forming part of Detweiler's city map. Indeed, excavation of this entire city block is not even explicitly referred to in the *Preliminary Report* where Hopkins simply recorded that Brown 'dug extensively in the Roman quarter' (PR 7/8, 2). Apart from summary paragraphs by du Mesnil (1935, 277) and Frye et al. (1955, 161), no prose description of the excavation or its discoveries is known, although Yale holds a pair of small 'sketch-books' and some site cards which between them briefly describe and/or sketch artefacts, coin hoards, inscriptions, graffiti, and the layout of parts of the block. There are also some tracings of texts and, especially valuable, more than 800 object records in the eighth season finds register (Baird 2014, 121 n. 52), together with photographs of a proportion of these. There are, however, no surviving photographs of the block under excavation.

The original pencil plan of the block does survive (Yale archive E8 block N.8), alongside the inked publication drawing traced from it (E8 block N.11), and two other interpretative schematic tracings seeking to reconstruct the plan of the pre-Roman civil housing (E8 block N.9), and the military conversion (E8 block N.10). The pencil plan, at 1:100 but meticulously detailed, is unsigned but apparently by Detweiler who then immediately drew up the inked version. These illustrations provide a great deal of information, despite containing significant survey errors showing the shape of E8 and the flanking lengths of D and E Sts as distinctly sinuous where they are closely orthogonal—mistakes perpetuated in Detweiler's city map. However, the drawings do preserve the system of room numbering used in the other records. This was intended to be a single continuous sequence, the usual defining of houses within a block by letter, and labelling of their rooms starting with the court as 1, not being undertaken for E8 due to the plethora of modifications, demolitions, and subdivisions. The numbering incidentally attests the limitations of Brown's recording, as several room numbers were used twice, some then distinguished as e.g. '70'' ('70.1' etc. in Fig. 5.63).

The plans record a lot of structural detail including fixtures and large objects like *pithoi* or *dolia*, although the conventions used to denote differing structural materials are not recorded. Inspection on the ground indicated that walls and features shown hatched in N.11 record features the excavators ascribed to the military constructed from mud brick, or

rubble and sometimes fired brick set in mud mortar. It is often unclear whether some major wall lines drawn stone by stone were fully upstanding or, more likely, had in the military period been demolished to floor level, although important assistance is provided by two French Air Force vertical air photographs which, showing the block under two different sun angles, help pick out features upstanding in the 1930s. Nevertheless, the resolution of these is not much better than 1m, meaning that it is still difficult to be sure of circulation routes within parts of the block. There is, then, considerable archival evidence to work on, but total absence of photographs of work on this block, and lack of any overall account by Brown, remain substantial handicaps to understanding its excavation, especially given the poor state of preservation of the site when examined by the writer and in much more detail by Jennifer Baird between 2005 and 2007 (Pl. XVII). The flimsiness of many of the structures Brown's team revealed made them especially vulnerable to erosion over the seventy years following exposure. By 2005 the pattern of military-built walls in the NE part of the block was reduced to a vegetation-covered rubble field.

Despite these limitations, Baird has produced the first substantial published account, to which the reader is referred for fuller details, especially of the artefact record (Baird 2014, 116–25). It is clear that, given the relative riches of the archival record but the greater than usual post-excavation erosion, full study of this block, and verifying the details and ambiguities of the plan, would require extensive re-excavation. The following discussion seeks to complement Baird's account, comprising further work particularly on the structural aspects.

Preservation, and Finds from the Block

The excavators gave the data from E8 relatively little attention because it was felt to have 'yielded little in the way of interest' (Frye et al. 1955, 161), meaning no prominent buildings, key inscriptions, or high-quality artworks were found. The limited depth of stratigraphy in the N of the city also meant relatively poor preservation of wall surfaces which might preserve paintings or texts; some were indeed found where walls survived to c.1.5m in the S part of E8, but the deposits tapered to barely 1m deep at its N end. Before the Roman period it was occupied by relatively undistinguished Durene housing. The whole block was subsequently converted to military accommodation, some very irregular-looking and partly ignoring the city grid alignment. Ever since excavation, E8 in the Roman period has been seen as constituting housing for ordinary soldiers. Such apparently low-status areas are of much greater interest in the early twenty-first century than they were to the excavators. By no means least, it also generated a recorded assemblage of some 800 portable objects, unusually rich and well recorded by expedition standards, an assemblage likely attesting the



Fig. 5.63. Plan of block E8 based on Baird's resurveyed plot, with additional information from Brown's notebooks and YUAG archive drawings: the original pencil site drawing (probably by Detweiler, numbered by Brown), interpretive tracings of the civil and military phases (annotated by Brown), and unpublished inked version (by Detweiler).

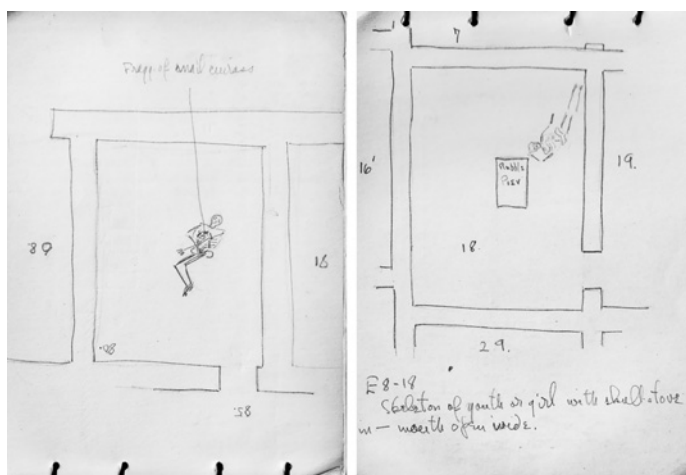


Fig. 5.64. Sketch plans of the two casualties of the fall of the city found in block E8, from Brown's notebooks. The body in E8-80 is apparently a Roman soldier; the label notes 'fragg. of mail cuirass'. That in E8-18, 'Skeleton of youth or girl with skull stove in—mouth open wide', was probably a soldier's family member.

final days of the city which Baird has studied to great effect (Baird 2014, 119–25), and some dramatic evidence of the violent end of Dura which incidentally provide important clues to site formation processes.

Brown's notebooks recorded discovery of two bodies found lying on the floors of rooms in the block (Fig. 5.64; Baird 2014, 119–20). In E8-80 lay a corpse still clad in 'frag[ments] of [a] mail cuirass'. The second, in E8-18, Brown recorded as the 'skeleton of youth or girl with skull stove in—mouth open wide'. These, then, appear to represent a soldier and a teenager killed during the final sack of the city. No further records of the bodies survive, so we cannot tell whether the details of the latter's skull represent peri-mortem trauma or resulted from post-mortem processes such as building collapse. However, from personal observation, given the way jackals and other scavengers around Dura rapidly dismember sheep carcasses, Brown's sketches indicating the bodies were found perfectly articulated suggest the roofs collapsed on them very soon after their deaths.

Were these fugitives from elsewhere in the city cut down where they happened to be cornered, or did they meet their deaths in the actual buildings they called home? The assemblage of portable finds from E8 include other evidence which may attest final desperate house-to-house fighting, such as arrowheads (Baird 2014, 120). Fall of the city to the Sasanians was doubtless immediately followed by looting, signs of which may be detectable in the body of the soldier. He was found still clad in iron mail, fragments of which are preserved at Yale (FR 7, no. 385). However, neither notebook nor finds register record any other objects with the body. Even if he had discarded his shield, helmet, and sword to run faster, he

would likely have kept his belt and purse, and certainly his hobnailed boots; hobnails were recorded elsewhere in E8 (Baird 2014, 121), but not here. The most likely explanation is that within a day or two of his death, his body was looted of everything except his mail shirt, valuable and reparable but already too noisome to remove from a decaying corpse.

Other military equipment recovered from E8 (Baird 2014, 120–1) notably comprises isolated components best explained as ignored or dropped during looting, including helmet fragments (FR 7, nos. 376 and 372), part of a military bridle (FR 7, no. 335) and, all over the block, copper-alloy armour scales.

Any looting will of course have impacted the use-assemblage we may otherwise infer the finds from the block to represent; as the bodies indicate, it seems there was nowhere for the occupants to escape to, so it may not make sense to think here of an 'abandonment episode', planned or hasty. As Baird has shown, within the limitations of site recording this also gives us our most detailed glimpse of occupation in Dura's military housing. It is argued that the material mostly, perhaps almost entirely, represents the final phase of military occupation, perhaps re-occupation c.254–6 after a significant hiatus (p. 36). The contingent which left these remains may well have been only recently arrived, different from those who had occupied E8 during the previous decades by whom, or for whom, the documented structural arrangements were likely created. How far the patterns observed may be extrapolated back to represent life in Dura's military housing before the changed circumstances of the 250s is hard to assess. Nonetheless, these remains do appear to provide an example of how such military housing was lived in by those it was intended for: soldiers below command rank, and their dependants.

Of particular interest are several 'lockets' mentioned in the finds register. These were probably seal boxes; other published 'lockets' from Dura certainly were (Baird 2014, 124–5 and n. 71; FR 4.4.1, 37–9). It has recently been convincingly argued that these were not so much used for sealing documents as bags of counted or weighed coin (Andrews 2012). As such, they may be evidence for consideration alongside the coin hoards, rather than offering evidence for literacy.

Three late coin hoards were found in this block, and are thought to represent soldiers' pay (Baird 2014, 120–1). Nos. 13 and 14 were found in E8-56 and no. 16 in E8-64 (PR 7/8, 424–5 and FR 6, 179–81). The field notes and object registers attest two additional hoards, in rooms E8-20 and E8-3.

In addition to arms and armour (FR 7, nos. 335, 372, 376, 385, 681, and 684), the personal effects of soldiers are attested by *fibulae*, forms including a crossbow type of known military pattern and an eagle brooch (Baird 2014, 121). There were also items likely indicating the presence of children and women, including a 'nursing bottle' and a 'plaster doll', and bone hairpins (Baird 2014, 125). Bracelets were also found, and a number of bone spatulae, perhaps for cosmetics (Baird

2014, 121). Two iron combs recovered (Baird 2014, 121), however, were likely for grooming horses.

Within the rooms of the block, Baird identified seven 'repeating clusters of artefact groups' in rooms 20, 23, 18, 21, 28, 35, and 11, 'perhaps attesting to the presence of soldiers' kit bags' (Baird 2014, 121–2). These clusters 'included an iron blade (variously recorded as a knife or dagger in the object records), a hook, a needle, a spoon, copper alloy tacks, "buttons" of stone and copper alloy, bone pins, and a lamp. No group contains all items, and other objects occurring in the same rooms less frequently include copper alloy rings (either finger rings or equipment fittings), bells, and knuckle-bones' (Baird 2014, 122). The hooks were described as 'fish-hooks', but this precise identification cannot be confirmed (Baird 2014, 122 n. 55). These clusters are an interesting discovery, perhaps representing the durable components of the material culture of a typical soldiers' household.

Other objects from the block Baird notes as unusual for Dura included parts of figurines and statuettes, of humans such as a gladiator or boxer, and deities including Aphrodite. 'These small, portable material culture items more characteristic of Mediterranean sites are not found widely at Dura, and might represent personal belongings brought with members of the military' (Baird 2014, 123). Another unusual object for Dura was a copper-alloy eagle's head, perhaps a furniture fitting (Baird 2014, 123–4 and fig. 3.5).

Conversion of E8 to Military Accommodation

If the finds assemblage probably gives us a snapshot of the final occupation of E8, its structures and fittings reveal much about its longer-term history during the military occupation of the block (Fig. 5.63).

Traces of wall foundations and robber trenches on the 10th and E St frontage lines plotted by Yale in the NE corner of E8 show that the block had been fully built up with modest-sized normal courtyard houses, presumed to have been standing at Roman takeover. Quite extensive traces of earlier foundations, e.g. beneath rooms 48, 56, 60, 52, and 26, are visible on the plans, indicating at least one earlier building phase. The original layout is also indicated by the positions of cisterns, attested by squarish covers with central holes, in 87, 79, 54, 34, 16, and 21. That in 19, into which a piped drain had led, was covered by a late partition. A reconstruction of the plan of the civil housing was attempted in archive drawing E8 block N.10.

The nature of the structural changes made to E8 and ascribed to the Roman military has been well summarized by Baird (2014, 118). She observed that the housing in the block had followed normal Durene layout, with individual rooms or suites accessed via multiple doors off a central court. Presumably on military takeover, this pattern of internal communications was radically modified, with some doors blocked, new portals knocked through, and additional

partitions built to reconfigure suites of rooms. The new partitions were different in character from regular Durene house-wall construction, but were relatively crudely constructed, e.g. of re-used rubble, probably originally set in mud mortar rather than the traditional *djuss*. Some of these rough new walls, especially towards the middle of E8, were not on the orthogonal block alignment. Existing courtyards were reduced as parts were partitioned off, while some doorways were reduced in width (Baird 2014, 118).

It is noteworthy that in the W and S parts of the block, existing rooms were mostly reused as they stood, with only the largest being partitioned (e.g. 8, 3, 35). Some exterior doors were blocked (e.g. from 10 and 51 onto D St, 24 and 30 onto E St), as were a considerable number of internal doors (Baird 2014, 118). New doorways were created by bashing fairly rough holes through extant walls, with no effort to install proper threshold slabs or jambs. A number of external and internal doorways were narrowed (e.g. from 68 to D St, and those between 42/55 and 21/3). The wide street door with threshold from E St into 30 was also apparently a military addition. Military-phase partitions and door reductions or blockings were mostly constructed using rubble in mud mortar or mud brick. In the less well-preserved northern end of the block, among the rubble to which the flimsy military-phase walling had mostly collapsed by 2005, Baird noted many fired bricks were to be seen, a material not used in pre-Roman Dura and 'found only in buildings built or converted by the military' (Baird 2014, 119).

Baird notes the absence, unusual for Dura, of any sign of stairwells even in the better-preserved S part of E8 (Baird 2014, 118). However, in the military phase use of entirely wooden stairs or ladders to access roofs might have left no traces Brown's team would have recognized.

She has also suggested that the house courtyards of E8 might have served as the communal space provided by the verandas normally seen in front of Roman barracks in Europe (Baird 2014, 118); indeed such barracks were most often in facing pairs, creating a quasi-courtyard between them. However, as she further notes, E8's original courtyards were all substantially encroached upon by additional partition walls extending the roofed area (19, 16, 21, 40, 34, 54, etc.: Baird 2014, 118). In practice this reduced some courtyards to little more than light-wells, leaving very limited space for communal activities.

The most profound changes were in the N half of the block. The NW corner of E8, apparently including a doorway onto 10th St, was demolished, and then or later access to the block was walled up. The likely purpose of this small modification around the 10th/D St junction is discussed below. Much more dramatic—and for Dura less usual—was demolition, rather than simple conversion, of the civil housing occupying the NE quarter of the block. As foundations and robber-trenches attest, this area had been fully built up, and was presumably still standing at military takeover. Yet it



Fig. 5.65. Base of an oven in court E8-54 shown with Brown's sketchbook drawing of an oven of the same type in E8-7.

was completely razed to ground level, before subsequent rebuilding in thinner walling and more irregular layout. This is also examined below.

Other features marking out the E8 housing as different from that in the civil town was the density 'of round "tanur"-style ovens' (e.g. Fig. 5.65: in 3, 7, 13, 16, 44, 54, 60, and 84, with probable further examples in 39, 53, 75, and 79, plus 'storage capacity in the form of *pithoi*' in 5, 10, 54, 64, 70, 84, and 90: Baird 2014, 119 and n. 35). The original plans also show at least five examples of another installation: what appear to be more large *pithoi*, with the top part broken away to make a large opening, set on their sides. Three were positioned in former doorways (facing into 22, 29, and 81). Another lay in the corner, and set partly into the wall, of 69 facing onto the street. The fifth was set into the wall between 70 and 70.1. These curious installations seem best explained as a second kind of oven, or makeshift fire-places for domestic heating.

Other recurrent fixtures comprised plastered basins of rubble or tile, probably animal troughs, another recurrent feature of the military quarter. Examples were recorded in 28 (two), 18, 16, 55, 71, 79, 66 (three or even four), 92, 83, and apparently 67 and 70. Baird associates such indications of facilities for mounts or pack animals with partially paved floors, suitable for mucking out, recorded in 30, 18, 49, 55.1, 50, 57, and 65 (Baird 2014, 119). There was an additional hard standing shown on the original plan in 74, associated with a long, narrow rubble-built structure which could have been a manger for multiple animals. Another possible manger was beside the trough and hard standing in 78. Other small rubble structures in the block, e.g. in 16, could be more examples. The square, apparently tiled 'shower trays' in 48 and 55 could also have been mangers or troughs. The apparent trough in 71 is likely associated with removal of the entire N wall of the room to open it onto 10th St, creating a street-side stable. A similar arrangement might explain removal of the outer wall of 20 on D St, although no trough was recorded here.

Where intact or fallen wall plaster was found, dipinti and graffiti were also recovered in E8 (Baird 2014, 125). These corroborate the presence of soldiers, e.g. in room 42 where one Antonius is named in Latin, and Aurelios in Greek (Frye et al. 1955, no. 60b). Obscure painted texts found fallen in rooms 82 and 84 include epithets likely indicating a legion, perhaps *legio IV Scythica* (du Mesnil 1935, 277), although Welles notes that this is tentative (Frye et al. 1955, no. 61).

While graffiti and dipinti were scattered across the block, it is probably significant that the few more elaborate wall decorations recorded were found in its S part. Brown sketched a colour dipinto on the W wall of room 29 of a dog chasing a hare out of some bushes (Baird 2014, 119). However, the most noteworthy décor was on the E wall of room 12, which bore distinctly 'classicizing' paintings in red and black, unlike other examples at Dura. These comprised multiple 'très jolis médaillons... représentant en buste des figures allégoriques, la Tragédie, la Poésie lyrique [Brown's notes also mention a 'Muse w[ith] lyre'], l'Histoire, etc.' (du Mesnil 1935, 277). Of these only Melpomene, Muse of Tragedy, was well preserved (Fig. 5.66; Pl. XVIII; Frye et al. 1955, no. 63). Legible labels for other figures survived including *Hygieia* and Zenon, 'presumably [belonging to] a representation of the founder of the Stoic sect' (Frye et al. 1955, no. 65).

This painting probably survived because it had subsequently been covered by two further layers of plaster, according to Brown's notes. Room 12 was also unusually rich in other graffiti. A fragmentary text, also on the E wall, included a sadly uncertain consular date in Greek (Frye et al. 1955, no. 62). Brown's notes also recorded four sketches of altars scratched into the 'earliest plaster coat' of the N wall.

The one formal inscription recovered from E8, a stone slab cut into a *tabula ansata* bearing a Latin text of uncertain date or reading, found in room 3 (Frye et al. 1955, no. 59; Baird 2014, 125), is very unlikely to relate to the block. It was evidently not *in situ*; it seems to have been brought from elsewhere to E8 simply as a useful flat slab.



Fig. 5.66. Original acetate tracing of wall painting of Melpomene, Muse of Tragedy, from E8-12 (see Plate XVIII).

Use of Space within E8

There are indications that use of space within the block was far from homogenous during the Roman period. Ovens and *pithoi* were not distributed evenly, with none recorded in a large part of the S half. Similarly the numerous features believed to attest stabling for horses or perhaps pack mules were concentrated in some areas and not others.

The plan of the NW part of the block can be substantially understood, and had a strongly equestrian theme, at least initially; there are important spatial indications that there were two structural military phases in this part, indicating a major change of use. Cistern mouths in 87 and 79 indicate the NW corner of E8 originally comprised two small civilian houses, one arranged around a court comprising 66/85/87 and originally entered via 69, the other around a court in 79, entered via 68. In the military period the intervening walls were knocked down to open up a single large yard. This new unit was equipped with multiple troughs, in 66, 67, and 79, plus one in 78 also having a flagged floor and probable manger. This looks, then, to have been converted into a discrete unit mainly comprising stabling. The entrance for animals was through 69, partial demolition here perhaps explicable as easing passage of horses between street and courtyard by eliminating the sharp right-hand turn at the

entrance. The same consideration likely explains the large hole broken through the wall between 69 and 81. The other street door to this putative stable complex, through 68, was narrowed perhaps at this time as a separate pedestrian entrance.

However, it is also clear that this stable facility was subsequently converted to other uses. The wide N entrance from 69 was sealed by a wall which, in the absence of any other street access except the narrowed 68 door, meant horses or mules could no longer access the building. This was probably when the multiple ovens were inserted; those near the N wall, especially that at the N end of 66, can hardly have existed when large animals were moving in and out and using the adjacent troughs. The military partition walls in the courtyard also make best sense in this second period, the space divided into larger numbers of smaller rooms more suited to people than horses. (The troughs, not more than 200mm high from examples seen elsewhere on site, were not removed; perhaps these trip hazards were just buried under additional layers of rammed earth flooring.)

On the E side of E8 was another group of rooms (30, 28, 36, and probably 40) with a concentration of troughs and flagged floors again indicating a stable block. As in the NW corner, the wide street door to this, from 30 onto E St was subsequently blocked up leaving no obvious practicable route to bring animals in or out. Again we seem to have a second phase in which stables were repurposed.

The better-preserved, and more regularly laid-out S part of the block is also fairly comprehensible in terms of functional space. Baird suggested that what had probably been three houses, organized around courtyards 21, 16, and 19, were combined into a larger unit occupying a third of the block. Sealing of the D St doorway into 10 meant this complex was accessible only from 8th St to the S via 1, and from E St through 24 (Baird 2014, 118). In this new arrangement, room 4 controlled access to the W part of the complex which otherwise comprised the original SW house, found with an extensively reorganized pattern of internal space division and circulation resulting from new partitions and door modifications (Baird 2014, 118–19). This makes good sense of the evidence, although I would propose that this large S unit was originally even bigger than Baird suggested, and included a stable block, 30, 28, 36. The reason for this is the association of a number of unusual features in the SE part of E8. These, all apparently early military features, together show striking similarities to the first military phase of the great E4 house, albeit on a rather smaller scale.

The first of these features is the enigmatic masonry projection, terminating in a column, on the N side of the room 30 door on E St. The purpose of this is obscure, on its own. However, it does look tellingly like one half of the F St porch structure marking the entrance to the E4 house under military occupation, complete with engaged columns and internal benches. It is proposed that originally the E8-30 structure had a mirror image on the S side of the wide

doorway, itself a military creation. Indeed in 2007 while inspecting this area, I saw a fragment of masonry walling and adjacent fragment of rubble-built column which I thought had been displaced from the structure recorded by Yale, but which was in approximately the correct place to represent its twin eroding out of the unexcavated deposits on E St. It may be that the original 'wall-chasing' trench along E St had ploughed through its basal connection to the block. It is suggested that here a new wide, porticoed door to 30 became the main entrance to both a stable block, and also to the S part of E8, especially the complex around court 21. Access from 30 was via new door 30-24, with 24's street door being blocked at military takeover.

The other significant focus in this area is off court 21: room 12. The marked concentration in room 12 of classical texts and imagery of figures and altars, of allusions to religious rites, Greek myth, and philosophy in a room facing onto a courtyard is reminiscent of room E4-23, another military-adapted space. That appears to have been a shrine room facing onto a courtyard, an arrangement paralleled by E8-12 opening onto 21. Together, the parallels are striking between E4 and the SE part of E8 in architecturally formalized entrance, integral stable block, and a special, decorated, perhaps sanctified room facing W onto a courtyard. It is suggested that both were centres of authority, E4 perhaps for a unit commander, the E8 complex for a more junior officer. At Dura a number of centurions and decurions needed accommodation somewhere, and it is suggested that one or a pair occupied the S part of E8. This location might be analogous to such junior officer's quarters at one end of European-style custom-built barrack blocks. Both the E4 and E8 putative officer's accommodation appear to represent an early phase of military use, the décor and texts being plastered over in a later military phase.

Subsequently, sealing of the elaborated street entrance of 30, perhaps blocking of door 24-30 and other changes probably mark reconfiguration of the SE corner paralleling that seen in the NW part of the block, again suggesting two military phases in E8.

The evidence of the NE corner of the block provides similar evidence for more than one stage of military alterations. It is noteworthy that, of E8's pre-Roman N street frontage, only the stretch exactly matching the length of the adjacent E7-18/19 shrine colonnade was left intact. This strongly suggests that some or all of the demolitions in the N part of E8 were directly linked to the project to insert the *principia* and its related shrine into the site. It is especially significant that the entire NE corner house of the block was levelled, E of a wall line exactly matching the W side of the *principia* forehall. In a European-style 'playing card fort', the central axis of *principia* and forehall looked down the *via principalis* to the main gate. The positioning of Dura's *principia* essentially within the footprint of E7 precluded use of E St as such an axis, but demolishing the housing

immediately S of the new forehall created some open space in front of the *principia* complex which it seems the *principia* planners still deemed a priority over reuse of standing housing for soldiers.

Drastic reconfiguration of E8 through clearance of its NE corner seems to have been carried even further than this. Demolition of existing walls, most likely as part of the same episode, was extended towards the centre of the block, as far SW as court 54 and as far S as 11 and 26. It is unclear why this was done, but the cleared zone towards the middle of the block was subsequently substantially reorganized with a very different layout of rough walls, perhaps before there was also a reversal of policy in the NE corner.

At some unknown interval after its razing, most of the NE footprint of E8 was built back up again, in thinner and rougher walling, rather irregular in plan and partly off the city grid alignment except in one important respect. The new construction rigidly respected a line c.1.5m S of the old 10th St property frontage, thus still keeping a little of the space previously cleared outside the S door of the *principia* forehall. It is equally interesting that this new build on the then-empty plot was evidently permitted to spill somewhat onto the carriageway of E St, perhaps to make up for loss of floor area on the N side. Along with the masonry structure projecting into the street by room 30, this created another pattern of controlled impingement onto road lines like that just to the W where J2 encroached onto D St, again onto the W half of the road.

The NE corner rebuild clearly indicates a change of plan as, if from the outset the objective had been simply to push the E8 frontage back a metre or two from the *principia* forehall, why demolish the whole house? In E5, similar changes arising from the building of the *principia* and the 10th St colonnades were effected by partial demolition of extant structures. The NE corner rebuild in E8 is therefore likely to be somewhat later, but whether three years or thirty we cannot tell. Nevertheless, the structural evidence from the NE corner of the block again indicates two distinct phases of military use. There are also signs of later modification even to this, such as apparent removal of the N wall of 71, and perhaps a rough door cut through the back wall of 82, which might indicate a third phase, unless these were minor piecemeal alterations.

Chronology

Initial military conversion of E8 was thought to date to 'early in the third century', although no evidence was cited (Frye et al. 1955, 161). It does make sense to link demolition of the NE corner of E8 with construction of the *principia*, with rebuilding following at some later date. It is tempting simply to see these two NE corner phases as equating to the two phases of usage identified in the NW part of the block and around room 30 in the SE. However, this is not warranted by

the spatial layout or structural evidence, nor is it the best explanation of observations. Indeed the evidence of E8-69 at the far NW corner suggests otherwise.

As we saw above, the NW corner of the block was first turned partly or wholly into stables, with animal access via 69's doorway from D St. Here the corner of the building was demolished, probably to make it easier (or possible) for horses to pass between street and court 66/77/87/85. This had already occurred before the *principia* and shrine 18/19 were planned, and the rear wall of colonnade 18 was simply butted against the end of E8's truncated N frontage wall. The major implication of this interpretation is that it places the early, 'equestrian' phase in the NW part of the block *before* the laying-out of the *principia*, so before c.210. Further, there are contextual reasons, both archaeological and historical, for arguing a longer and more complex history of military usage than one starting only in the third century.

The testimony of the Mithraeum, the Temple of Azzanathkona military compound, the E3 bath, and the E4 house—structures W, N, NE, and E of E8—together point to the NW quarter of the city being a, if not the, focus of the early garrison in the later second century AD. There is a very strong likelihood that civil housing in this area would have been taken over for military accommodation well before AD 200. As we will see in Part III, textual evidence indicates that Dura was home to a substantial force of auxiliary infantry and cavalry during the last quarter of the second century. It is suggested that the first, 'equestrian' phase of military usage belongs to this early period, with E8 being used by some of the *equites* and their mounts from either *cohors XX Palmyrenorum* or *II Ulpia*. This was the equivalent of the combined stables and barrack accommodation for cavalry identified in some European forts (Hodgson 2002; Hodgson and Bidwell 2004). The subsequent marked changes seen in the NW and SE of the block, indicating a shift away from equestrian use, could represent the Severan/Caracallan change of garrison, with presumed departure of *II Ulpia* and arrival of legionaries at Dura—and graffiti do at least hint at legionaries in this block. Legionary takeover of E8 is therefore plausible around the time part of it was demolished in connection with building the *principia*. On this model, the rebuilding of the NE part of the block represents a third structural phase, with signs of subsequent changes even to that, mostly occurring before the disruptions of c.252–4 and final occupation of the block attested by the portable material culture left by its last occupants.

MILITARY HOUSING E AND SE OF THE *PRINCIPIA*: E6 AND E5

Block E6

E6 was entirely unexcavated, except for the usual 'wall-chasing' trenching to define it which, according to aerial

photography (Fig. 1.12) was conducted along all four sides, although Detweiler did not plot actual wall lines in the SE or NE. There may have been street doors in these undocumented areas, in addition to those Detweiler plotted, four leading onto E St. That at the NW corner was relatively grand. The plan also suggests that the N street frontage wall was rebuilt to eliminate any street doors and create a uniform rear wall to the S colonnade on 10th St. Magnetometry (Pl. VIII) indicates E6 had been fully built up with orthogonal buildings, apparently normal pre-Roman civil housing, comprising multiple properties like E8. *Contra* Detweiler's city map, the block is a regular rectangle. There appear to be external buttresses on the S and E frontages, perhaps indicating parts of the block with upper storeys. Otherwise there are no known structural projections into the surrounding street lines.

There is nothing in these meagre observations to suggest anything other than that, given its position in the heart of the base zone, the block may be assumed to have been converted into soldiers accommodation, being divided up much like neighbouring E8.

Block E5

Only a small part of E5 (Fig. 5.5) was excavated by Yale, rating a single paragraph in *PR* 5, 218. Almost all the rooms down its W side were exposed during the course of digging the *principia* which, overlying the former line of E St at this point, butted up against them. Confusingly, these W rooms in E5, which did not communicate with the *principia*, were erroneously given E7 numbers. One or two rooms on E5's S side were revealed when 10th St was excavated, and the normal wall-chasing trenching to define the block was conducted around its E and part of its N sides. Recently magnetometry has added important detail about its unexcavated middle area (Pl. VIII).

Block E5 was never a normal-sized city block. In Parthian times it had been bounded in the usual way on the W by E St and to the S by 10th St. F St ran up its E side, at this point running slightly off the city grid axis to the E. Almost the entire N half of E5's projected area was in reality taken up by the plaza forming the approach from F St to the Temple of Azzanathkona, so its actual footprint was much reduced. It was reduced further when the Roman military broadened and colonnaded 10th St, demolishing E5's S street frontage and create a new one several metres further N. The nature of the pre-Roman buildings in E5 is discussed below, but more can be said of its usage in the Roman period.

The exposed rooms on the W side of the block preserve interesting details. It was evident on inspection in 2010 that these predated construction of the *principia*: a number of rooms had been partially demolished to facilitate building of the new HQ followed by restoration using the exterior of the new building as their new rear wall. There was one especially interesting detail: a niche was built into the exterior

wall of the E tribunal, facing into E5's room 13. The best explanation for this architectural consideration by the *principia* builders, for non-connecting spaces in the adjacent E5, is that room 13 and the building of which it was part was designated for specific military purposes—or, more probably, was already in garrison use. The new niche likely replaced one lost in the *principia* construction.

In discussing 'the house of the commander or commanders of the garrison in J1', and noting the twin tribunals in the *principia* hinting at more than one unit commander, Gilliam suggested that a second such courtyard officer's residence might lie in E5 (PR 9.3, 69 n. 2). Magnetometry anomalies might seem consistent with such a structure, orientated N–S and accessed from the Temple approach (Fig. 5.5). The N street door of this area was close to the rear door into the *principia*. It also has a room (28) potentially analogous to the J1-A8 'guard room', between its street entrance and the Azzanathkona porch and *principia* access. However, even if this is correctly identified as another anomalous courtyard building similar to J1-A, excavation would be needed to determine whether this was actually an officer's residence as opposed to, say, a hospital or some other facility, while room 28 could simply have been a survival of a pre-base shop. Indeed the limited evidence of the archive and inspection of the exposed remains suggests that this area was divided into multiple smaller spaces, including the putative courtyard, consistent with ordinary soldiers' accommodation like E8. Rather than a rectangular courtyard building, the magnetic anomalies probably define the outlines of what had originally been two squarish civil houses forming the W half of the reduced block, the S part of the SW house having been demolished to make way for the 10th St colonnade.

The E half of the block had likely comprised two similar houses, again squarish except for their E frontages on F St. The axis of F St N of 10th St was offset a little to the E, involving a slight 'dogleg' in its line from the S. It also changed direction somewhat as the initial layout of the street grid went slightly awry N of 10th St, under the influence of the irregular course of the N defences. This meant that the E frontages of buildings in E5 had either to be angled, or if rooms were to be kept orthogonal, they had to be built on a 'saw-tooth' plan. Surviving evidence suggests that both strategies were followed in different stretches (Fig. 5.5). Some building corners appear to project into the W side of the F St carriageway, and might represent the kinds of military-sanctioned encroachments seen in block J2 and elsewhere.

MILITARY HOUSING W OF THE PRINCIPIA: J1 TO J4

Apart from the large residence J1-A, blocks J1-J4 are virtually unexcavated beyond wall-chasing to define them,

locating street doors etc. (Figs 1.12 and 5.1). These observations, combined with magnetometry (Pl. VIII), indicate that this was a zone of civil housing, in which only two blocks (J2, J4) were fully built up at military takeover; just the S parts of J1, J3, and J5 seem already to have been developed. Except for the J1-A house, it is inferred that this residential district was generally converted directly into soldiers' accommodation similar to that in E8.

Block J1, S of J1-A 'House of the Prefect'

The N part of this block was occupied by the 'House of the Prefect' (J1-A). Except for a few rooms adjacent to the revealed house, it is not certain what lay in its S half. Given the two tribunals in the *principia* suggesting two contingent commanders, Gilliam suggested that a second such courtyard residence might lie to the S of J1-A (PR 9.3, 69 n. 2). The area remains mostly unexcavated, in part at least because it was overlain by the Ottoman road and modern vehicle track, and the temporary diversion road line made during the excavation of the *principia*, while the 1936 air photo (Fig. 1.12) shows a rail-track embankment across the S part. All this, and especially the shallowness of the archaeological deposits, meant that magnetometry was able to add little. However, the zone S of the J1-A house had apparently been filled with civil housing on military takeover. The small area excavated immediately S of the 'House of the Prefect' exhibits features such as odd-angled secondary walls projecting into a courtyard and a basin/trough indicating service areas for J1-A and/or soldiers' housing, rather than Gilliam's second officer's residence. 10th St to its S may have been built over, connecting J1 directly to J2.

Block J2

Unexcavated except for block-defining trenching and some peripheral details, although magnetometry indicates that J2 had been fully built up on Roman takeover, apparently with multiple houses similar to those in the adjacent E8 (Pl. VIII). The most detailed plan is Detweiler's preparatory drawing for his city map, although a surveying error misrepresents the E side of the block as curved, where it was actually straight (Fig. 5.1). Detweiler's plan shows four W doors onto C St, and three onto D St. No doors were observed on the N or S sides. The main points of interest occur around the N and E peripheries of the block, where various constructions in the surrounding roadways represent extensions to its original rectangular outline.

On the N side of J2, on the line of 10th St, there was a short portico at the E end, and in the middle of the N side 'wall-chasing' trenching reveals further projections into the street which seem to completely block the carriageway, linking J2 directly to buildings in the southern end of J1. 10th St appears to have been entirely closed at this point, turning J1

and J2 into a 'superblock'. J2's E side is characterized by roughly rectangular, stone-founded projections built out onto the carriageway of D St. More or less regular extensions onto road lines are seen elsewhere, and over the stretches of road S of 8th St truncated by the 'camp wall'. It is noteworthy that there are no mirroring extensions on C St on the W side; they are only on D St, which was double the normal Dura street width. The projections extended no further than the centreline of the old carriageway, effectively reducing it to c.3m, still wide enough for vehicles. It is unclear what these projections are, as only their edges were defined. They probably represent additions to the military accommodation presumed to characterize this block, making maximum use of the ground, the great width of D St being considered unnecessary. D St was similarly reduced in effective width to the N beside J1, albeit there the narrowed carriageway was pushed to the W side rather than the E as at J2, while its line was completely cut by the 'camp wall' just to the S.

On a couple of archive drawings is marked what appears to be an otherwise-unrecorded blocking of 8th St, between J2 and K1. The position of a trench presumably corresponding to this was identified on the ground with the aid of the 1936 air photograph (Fig. 1.12). The area was cleaned and partially re-excavated in 2007. A rough line of stones was revealed running S cross 8th St. On close inspection, this was seen to be a stack of stones forming the quoins of the corner of a wall fallen across the road from J2. In the course of this work, within the footprint of J2 a plaster trough was identified, again consistent with conversion of the block to military accommodation.

Block J3

The Ottoman road/modern access track runs across the N half of the nominal footprint of J3. The extremely thin stratigraphy at this end of the plateau also hindered magnetometry, although this did confirm that the S and middle parts of J3 had been built up (Pl. VIII), confirmed by the usual wall-chasing trenches defining the block. However, it is not clear that the N end ever was. There are indications that J3's E frontage on C St was established at least as far as a point opposite the S part of the J1-A house, where traces of a pier projecting into the road were recorded by Yale and seen in 2008 (Fig. 5.1).

It seems, then, that at least the S two-thirds of J3 had been occupied, probably with civil housing converted to military accommodation. 10th St between J3 and J4 to the S appears, like the adjacent stretch between J1 and J2, to have had numerous walls and structures built over it, probably closing it to traffic and linking J3 and J4 into a single 'superblock'.

Block J4

The geophysics plot of this fully built-up orthogonal block (Pl. VIII) looks very much like that of J2, i.e. it resembles E8

in displaying some apparent sub-units, notably two possible courtyard houses at the southern end, but otherwise looks to comprise large numbers of small rooms. At its N end, 10th St between J4 and J3 appears to have been at least partly built over, perhaps directly linking the two blocks (Fig. 5.1).

MILITARY HOUSING ALONG THE CITY WALL IN J7

Between A St and Wall St along the W city defences had been reduced blocks K7, J8, and J7 (Fig. 5.1). The entire area N of the camp wall appears to have become soldiers' housing, much of it built over the line of Wall St against the city wall, roughly as far N as the projected grid position of 12th St. Block J7 was investigated in detail by Yale.

Location and Context

Lying between 10th St and the nominal line of '12th St' to the N, and W of A St, J7 was bounded on the W by the city wall (Figs 5.67 and 5.68). Changing direction to the E at this point, the defences gave block J7 a much reduced and irregular plan. At least in the Roman period, it also seems the line of A St was correspondingly deflected to the E of its notional grid line. The defences at this, the N end of the otherwise stone W wall, were largely completed in mud brick either side of the stone-built Tower 24. In the final phase of the city this area around the Mithraeum comprised relatively flimsy irregular constructions abutting the city defences, with roof beams embedded in the mostly mud-brick face of the wall.

Discovery, Excavation, Recording, and Publication

The buildings in J7 were excavated ancillary to investigation of the Mithraeum found in the seventh season when du Mesnil and Comstock were working on clearing the W defences. They only removed the embankment in J8 to link up with already-cleared L7 section in the eighth season (archive photos H49 and H56).

Apart from the preliminary Mithraeum publication, beyond a few references with a plan in *PR* 7/8 (62–4 and fig. 29), and brief coverage by Baird (Baird 2014, 126 and fig. 3.6), J7 remains unpublished. The published drawing (not located in the Yale archive, although Pearson's original pencil plan survives: archive drawing Mithraeum N.5) was numerically keyed for accompanying text. Omitted from the publication, a six-page typescript survives in the archive, preserving the key and a summary text, signed by Pearson at 'Dura, 1935–6'. The archive holds a few photographs showing parts of J7 around the Mithraeum.

Many artefacts were recorded from the block, including military objects, but as Baird notes 'the locus information



Fig. 5.67. Centre, the military buildings of block J7 seen from the N in tenth season, showing the shallowness of the remains on the E side (L), and the considerable height of some on the W, preserved by encasing in the late rampart. Top, roughly the same view in 2007 showing the degree of erosion. Bottom, detail of the tenth-season photo showing the inner face of the city wall with niches, apparent plastering of room walls, and rows of beam holes attesting abutting buildings. The Mithraeum is at (a); room J7-23 at (b).

recorded in the field registers cannot be correlated with any extant plan, and the depth of excavations means that there is a considerable problem of finds from different levels not being separated stratigraphically' (Baird 2014, 126), i.e. we

generally cannot tell which items may have come from the floors of the buildings, from the mass of earth dumped over them to form the anti-siege rampart, or even perhaps from beneath their floors. Consequently, they generally cannot be taken as any guide to activities during the use-life of the J7 accommodation.

The relatively flimsy buildings did not fare well after excavation; while some walls by Tower 24, having been entombed in the embankment, stood to above head height on excavation, by 2005 they had completely collapsed and the area was generally obscured by slumping of trench sides, material washing down from the mud-brick city wall, and vegetation (Fig. 5.67). Although some wall lines were roughly recognizable on the ground, very few well-defined points such as wall corners and door jambs could be identified, so without extensive re-excavation planned Total Station resurvey of the J7 structures in 2008 proved impractical. The new plan (Fig. 5.68) is a manipulation of Pearson's to fit with respect to the modern plot of the city walls, supplemented with direct observations on the ground. Inspection of the visible remains showed that Pearson missed one or two elements, notably a fine plastered niche, 1.1m wide, 0.5m deep, and c.0.6m high (top recently collapsed in 2010). The position of this corresponds with the S-most bay of room J7-20.

Other important evidence, still visible on site and in some archive photos, appears virtually unremarked upon by the excavators except, briefly, von Gerkan (*PR* 7/8, 51): this comprises sets of sockets cut in the city wall for beams projecting into J7, some still containing wooden stumps when excavated, although these were no longer visible by 2005. They were certainly pre-siege, as they were buried when the embankment was raised. While some, in the mud-brick stretch of the city wall, might be 'put-log' holes from construction of the defences, this does not explain the erratic but repeated presence of groups of such holes along the stone wall of J8, all the way to Tower 21 and just beyond it to the S (below). Most are evidently holes for sets of rafters or in some cases even floor-joists for upper storeys. This evidence was recorded in 2008. However, many of the timber holes are today significantly obscured by 'mudcicles' or 'stalactites' formed by rain-eroded mud brick from the superstructure above. Archive photos offer only partial coverage of the original state of the wall (Fig. 5.69).

The Adjacent City Defences at J7

The nature and development of occupation in J7 are intimately related to the construction sequence of the adjacent city walls. As beam sockets were cut into the inner face of the wall, for rafters and even floor joists, here we have evidence both in plan and in elevation for buildings constructed against the defences.

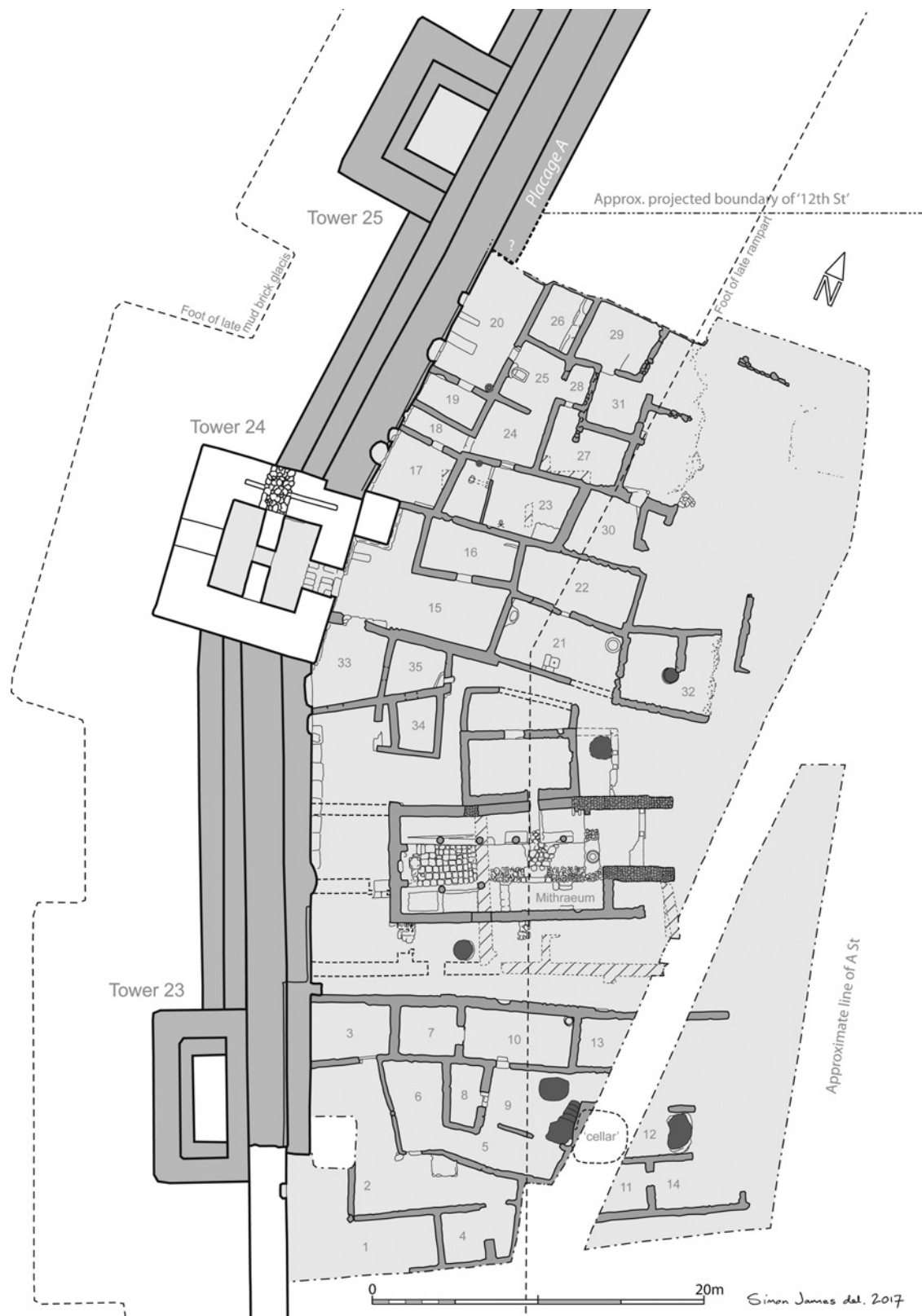


Fig. 5.68. Plan of the military structures in J7, based on Pearson's archival plan corrected to fit the modern survey of the city defences, and with additions. Hatching indicates pre-military phase foundations.

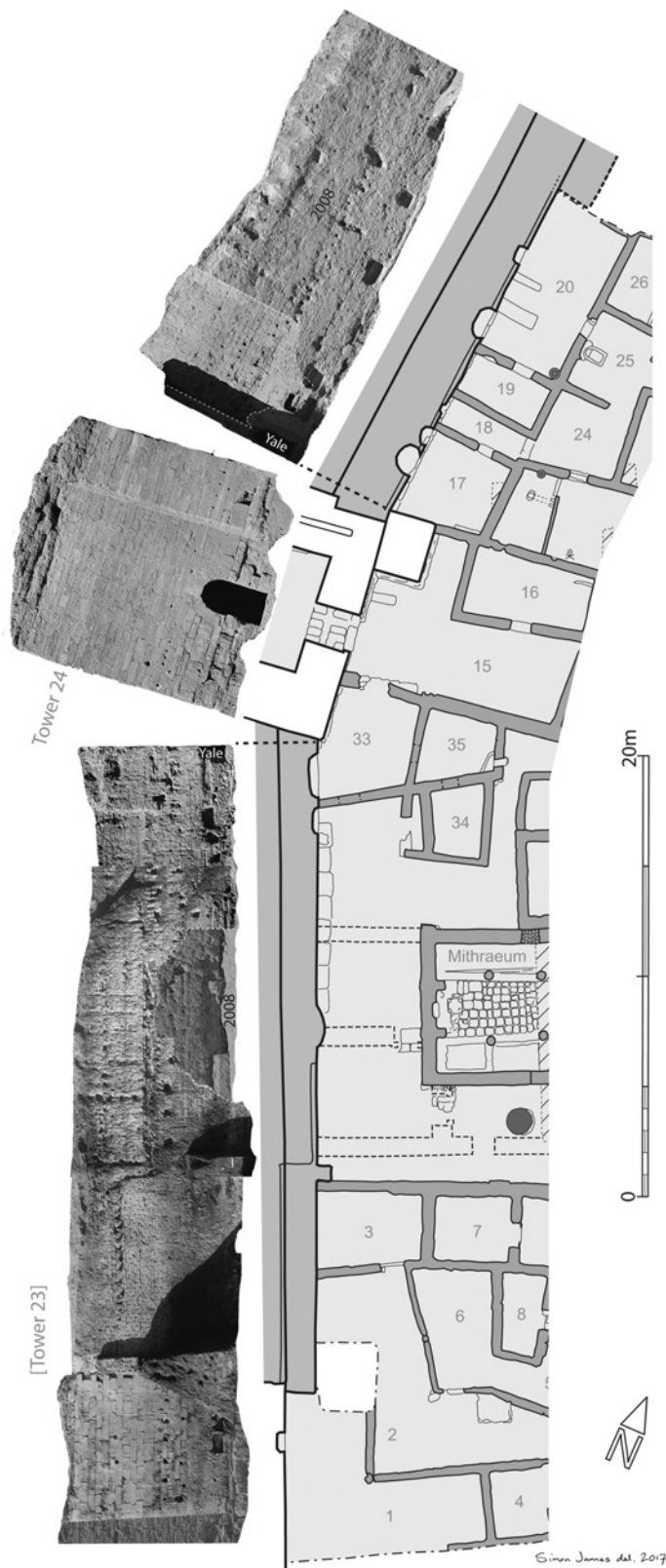


Fig. 5.69. Plan of the military buildings with photomosaic of corrected Yale archival imagery showing the inside of the city wall with its niches and timber sockets. Areas without 1930s coverage supplemented with new imagery of the eroded surface taken in 2008.

In this region the W defences running N from the Palmyrene Gate are radically different from the rest, in both line and construction. At Tower 24, the wall line turns markedly E, thereafter running on a new line to Tower 1 at the NW corner of the defences, wherein nestles the Temple of Bêl. This was apparently to make use of the S-curving end of the N wadi as a dry moat to protect the corner of the city. Leriche conducted a detailed study of this portion of the defences (Leriche 1986), providing a revised sequence of phases and chronology, and correcting Von Gerkan's conclusions (*PR* 7/8, 60–1). He showed that Von Gerkan got the sequence of construction fundamentally wrong, in that the incomplete stone curtain was not partially replacing an earlier mud-brick enceinte, but rather that the mud-brick section completed an unfinished stone circuit, probably intended as a temporary expedient in the face of looming Parthian power at the end of the second century BC, but never replaced in ashlar (Leriche 1986, 69). So, while Tower 24 was built in stone, the adjacent curtain never was. It was only stone-built as far as a point between Towers 22 and 24; the remaining gap to Tower 24, and the entire stretch between Towers 24 and 1, was built in mud brick. This relatively weak stretch was subsequently reinforced, both by additional thicknesses and also provisional of additional towers to its face, one covering the change of building material (Tower 23), the others placed equidistantly between Towers 24 and 1 (Towers 25 and 26).

The inner face of the existing mud-brick wall N of Tower 24 for the most part provided with a thick additional layer of mud brick (Leriche 1986, '*placage A*', which also included a new stair to the rampart by Tower 1 and the Temple of Bêl). Where von Gerkan asserted that this must have run all the way to Tower 24 (*PR* 7/8, 51), as indeed simple defensive logic would seem to suggest, Leriche observed that it actually terminated well short (Leriche 1986, 76), behind the position of Tower 25; an explanation for this, relating to the J7 buildings, is offered below. This inner thickening is not closely dated by direct means, but it makes most sense as a measure not just to provide additional thickness but also to stabilize the extant mid-brick curtain during the major works to enhance its exterior. Leriche coin-dated the outer wall reinforcement to post-222 (Leriche 1986, 77), while Gelin generally related the stairs to c.230 (2000, 321, 335).

Early Phases of Building in J7

Parthian-era buildings in J7 were attested by recorded stretches of foundations, from which the excavators believed they could identify 'three periods of [pre-Roman] foundations arranged into a complex of rooms and courts similar in plan to one or two private houses' (*PR* 7/8, 63–4). 'It is noteworthy that [the early] foundations are in the alignment of a continuation of [A St], while neighbouring walls of later [military] structures ignore that street' (*PR* 7/8, 64). In fact, Pearson's plan suggests that the early foundations rather were aligned on the course of the city wall S of Tower 24,

not the converging projected line of A St on the city grid. The fragmentary nature of the remains makes it hard to draw firm conclusions, but it is noteworthy that none of the recorded foundations approaches the city wall line. It is suggested that as far as Tower 24 the first phase of building in J7 respected Wall St, which there debouched onto open ground S of the Temple of Bêl. The E street frontage likely did also respect A St which N of 10th St apparently deviated slightly to the E allowing for the angle in the city wall.

Buildings of the Military Period

At a late stage the area underwent radical reorganization, so that, except in the Mithraeum, the walls of the buildings existing when the area was engulfed by the anti-siege rampart bear little relation to earlier wall lines, thicknesses, construction methods, or orientations. Pearson's typescript (p. 5) states that the early, grid-aligned civilian buildings in the Mithraeum area were destroyed 'around 210 A.D.', and the new structures erected. He labelled these 'private houses' while noting they were within the area defined by the 'Roman camp wall' which he dated to 216. Although nowhere explicitly stated, either in *PR* 7/8 or in Pearson's unpublished text, these buildings look to be military accommodation analogous to that in e.g. X7 and the NE part of E8; the similarities between these, and their difference from earlier Durene housing, are manifest.

Pearson's plan of the late buildings shows constructions in this area comprising three distinct components (although there are reasons to suggest he made some errors or omissions which would change the picture significantly, discussed below). Most prominent within the excavated area was the later Mithraeum and associated rooms (p. 125), which came to form a small block isolated by A street and alleys. S of this lay a complex of fairly irregular spaces—rooms and courts—apparently without any access from the Mithraeum alley. On the N side was a similar dense complex. Some of the spaces in the latter were accessed from the Mithraeum alley.

Orientation of structures to the S of the temple was guided by the adjacent city wall line. Those just N of the Mithraeum were built off the angled face of Tower 24, an orientation also echoed in some walls still further N, although most of this final excavated region was laid out with respect to the further changed line of the curtain between Towers 24 and 1.

These buildings round the Mithraeum differed strongly in multiple ways from typical Durene buildings, in plan and construction methods; they are lightly built, with walls notably thinner than those of typical Durene domestic architecture. They were also constructed in atypical manner, largely of stones set in mud, faced with mud plaster (Pearson's typescript, p. 6). They were not, however, abject hovels: white *djuss* plaster was used in some parts (e.g. in room 20: Fig. 5.67). They were also so irregular in plan that the layout

and conformation are hard to interpret from Pearson's drawing. Which spaces were roofed, and which were open courts? Some doors are indicated by Pearson, but not all (e.g. how was 26 accessed?). The plan seems generally to comprise groups of two or three rooms (e.g. 7-10, perhaps with 8) linked by small courts/yards (in this case, 9), but were 5 and 6 roofed or open? Rooms 4 and 3 share an irregular court, 2, but how was this accessed? The block of unexcavated material behind Tower 23 could obscure an entry to 2 from the S—or was it entered through a gate/door from 6? The plan is also partly obscured by the unexcavated line of a track-bed for mining cars used to dump spoil from Wall St into the N wadi, so the relations of spaces 11-14 are unknown. Did ?court 9 and its dependencies connect with A St via a passage between 12 and 13?

Other notable features in the S complex include a 'cellar' with steps reached from 9, and deep pits in 9 and another in 12. These features, another recorded further N in 32, plus collapse at the E end of the rooms on the N side of the Mithraeum seen in 2010, likely belong to the pre-Roman phases, but may have continued in use. (Could these unusual cut features actually have been very early tombs, dating to before the laying out of the city walls?)

Rather more can be said about the complex in front of Tower 24, the ground floor of which was apparently incorporated as an additional pair of rooms. These formed part of a unit apparently entered from the lane around the Mithraeum by a door into room/forecourt 33, which on the E side gave access to 35 and 34, although Pearson only tentatively indicates door positions on his drawing. Room 35 had a corner basin on the floor which could be filled from outside, very likely a horse-trough, making this a stable. The N side of 33 then opened into ?court 15, which in turn gave access to the tower rooms and inner room 16. Against the E end of this lay another, two-room unit accessed from the Mithraeum lane. Here room 21, giving access to inner room 22, had a trough at its N end, and a round 'plaster mortar' at its S end, perhaps also reused as a trough or manger. The large gap in the S wall of 21 may have been to improve access for animals. This room also had a square cistern access cover, although it is not clear if this was in use or a relic of the civil housing. E of this again lay 32, perhaps another 2-room unit, now fragmentary, its walls and flooring of 'small gypsum chips' (Pearson typescript, 4) truncated, presumably originally facing onto A St.

The strip of apparently three units built off Tower 24 was separated by a common wall line, albeit apparently built in two styles, from a dense block of rooms to their N. These were in turn subdivided in two complexes according to party walls and communicating doors recorded by Pearson. One appears to have faced E onto A St. There were probably several two- or three-room units here, only partly preserved, one including room 30, another including 29 and 31. On Pearson's plan, room 26 appears to lack any access, but likely

had a door from the N where the wall was mostly unexcavated. All other rooms in this area on Pearson's plan were accessed through 20: 19 lay at its S end, all other spaces being accessed through it E door to 25. Off this lay the two-room unit 28–27 on the E. Off its S side was 24, which connected to the large but subdivided 23, while another door on the W led to 18 and 17. But once again, what was roofed, and what was open? It seems likely that 25, with its probable animal trough, was a yard or light well, as perhaps was 24. Access from the streets to all these spaces via room 20 was presumably via a door at its N end, onto the line of '12th St' and the open ground around the Temple of Bêl.

Room 23 provides some especially interesting detail recorded in Pearson's plan and typescript, including partitioning incorporating fired *tubuli*, and 'traces of red, grey and black painting, probably a cult scene' on its S wall apparently in the small niche on the plan. Pearson also noted that the skeletal remains of a child found at a point he marked with a skull and crossbones close to the niche.

One noteworthy regularity in the otherwise irregular plan of this block of built spaces is the common line of the E walls of 17–20, running parallel with the city curtain. This might at first sight suggest that the buildings here were originally laid out respecting Wall St, but it is more likely that this was governed by the roofing-over of this area with beams of common length embedded in the city wall; which brings us to the evidence of the beam holes in the E face of the city defences.

Beam Holes and Niches in the City Wall

Especially striking features of the area under discussion are the multiple series of timber sockets and plastered niches ('cupboard' features seen elsewhere in military accommodation) cut in the mud-brick city wall bounding J7 to the W. The niches were evident in 2010, and the sockets still partly discernible but had been much clearer at excavation, many then still containing timber stubs. As we will see, such sockets and some niches also continued some distance along the stone defences to the S, but stopped at the line of the camp wall.

While no surviving archive photography shows the original state of the elevation of the mud-brick wall N of Tower 24, it has been possible to reconstruct the appearance at least of the stretch S of Tower 24 from the backgrounds of archive photographs of the Mithraeum, while from Tower 23 to just beyond Tower 21 the stone curtain preserves the sockets clearly (Fig. 5.69).

It is unlikely that the observed rows represented putlog holes from construction of the mud-brick city wall. Rather than running the length of the mud-brick curtain most are in shorter, coherent series which clearly represent supports for timber roofs, or even upper floors, of buildings raised directly against both mud-brick and stone curtain, which they used as their rear wall. This explanation is also consistent with the plastered niches, like these seen elsewhere within

rooms at Dura cut in the city wall. In places, as Fig. 5.67 shows very clearly, the inner face of the wall was also mud-plastered, again indicating rooms abutting the curtain.

In part it is possible to relate the plan of walls with the vertical evidence of roofs or upper floors, and to some extent wall elevation lines seen on the inner surface of the defences. For example, the S wall line of 33 by Tower 24 matches with a vertical edge in the otherwise eroded stretch of wall facing here. On the N side of the tower, the N wall line of 17 corresponds with the end of a clear line of beam-holes in the wall above. Similarly the five niches cut in the mud-brick wall N of Tower 24 all fall neatly between the positions of walls, partitions, or benches of rooms 17–20 traced on the ground below, again indicating they belong together. Similarly, the two niches just S of Tower 24 also neatly flank the position of the S wall of 33. (The much larger holes in the curtain cut either side of Tower 24 visible in photographs are Yale *sondages* made during investigation of the defences: Fig. 5.69; Gelin 2004, 224).

One of the most striking implications of the beam-holes is that at least some of the buildings against the city wall appear to have been two-storey, unusual for Dura, at least on the plateau. So, for example, above the range of rooms 17–20 just discussed there look to be series of timber-holes at c.3m and c.7m above the excavated ground level (Fig. 5.69). Even clearer are two series, the lower one comprising large joist-holes c.4m above ground level, the higher of smaller timbering at c.7m, behind the Mithraeum. Here there is also a substantial irregular 'groove' or perhaps weathering line at c.5m on the same stretch, which might indicate more than one phase at this point. Multiple phases are indicated unambiguously by several distinct series of sockets cut into the last few metres of the stone curtain wall, with implications for the phasing and chronology of the area. These relatively flimsy buildings may have had very limited lives, being altered and replaced on short timescales. The series of beam holes behind the Mithraeum also underline this. They suggest that at some stage roofed spaces existed between the Mithraeum and the city wall. These series appear to correspond to military-phase wall lines shown in Pearson's Early Mithraeum plan (PR 7/8, fig. 32; Figs 5.53 and 5.69), rooms later removed to create open space all round the Middle or Late Mithraeum.

This is another important observation, because the implication is that irregular military buildings constructed against the walls were not an innovation of the 210s, the presumed time of the Middle Mithraeum and the camp wall; they already existed during the time of the Early Mithraeum, dated 160s–210. Some, at least, of these structures likely belong to the second century rather than the third, with evidence of multiple, sometimes radical rebuildings and changes of plan down to the 250s. These are indicated by the various overlapping sequences of beam holes in places, and by features in the recorded plan, not just the early walls behind the Mithraeum but in other details, e.g. the W side of room 34. The pattern of walls Pearson recorded looks in part a palimpsest of structures of several phases.

The Nature of Occupation in J7

While conformation of the J7 housing is hard to disentangle, the artefact records are even more intractable to interpret (p. 146). Nevertheless, fixtures and some *in situ* finds recorded by Pearson provide valuable information.

A number of rooms provide hints of internal arrangements, e.g. where niches have been cut into the city wall. These were plastered. The stepped 'cellar' in 9, perhaps an early tomb which the military builders co-opted, appears to relate in orientation, position and extent to the late buildings above. Room 26 possessed a 'bench or table' on its E side.

In 20, foundations of two 'low partitions or furniture' relate to the positions of wall niches behind, one of which Pearson missed off his plan. The southernmost foundation lies directly beneath a vertical slot-like feature in the city wall, confirming interpretation as a partition. On the wall between the niches Pearson also noted 'a "cult painting", a circular disc of plaster with a raised edge, the inner surface dotted with red and black paint'. There was also a 'mended pot' in the S corner.

Room 23 preserved most detail; its W walls seem to have survived to head height on excavation (Fig. 5.67, b). This relatively large room was entered from the N, with a light partition W of the entrance. A shallow drain, a (fixed?) jar against the N wall and two box flue tiles against the E wall might suggest the partitioned space was for food preparation and/or ablutions. The main space possessed a small niche near its SW corner, perhaps for an oil lamp, within which were the traces of a painted 'cult scene' noted above. Especially enigmatic was discovery near this of the 'bones of [a] child' (Pearson's typescript). No further details are recorded. Was it a baby or an older child? Were the remains, on, or under the floor, or in the rampart fill?

There are a number of indications of stabling in J7, i.e. plaster-lined animal troughs. That in 35 could be filled from the outside. Another was found in 21. The 'pottery basin of two compartments set in brick and plaster' in 25 is probably a further example, while the N end of 23 (below) may also have been a stable. All this suggests regular presence of animals, most likely riding horses and/or pack mules.

J7, then, comprises a series of small dwelling units around the Mithraeum, partly two-storey, with provision for stabling. In almost all regards—layout, conformation, construction, and style of occupation—the late J7 buildings contrast with local Durene traditions and practices. While in the lower town Durene housing was built against and into the living rock of the central wadi, on the plateau dwellings had never been permitted to impinge on Wall St, a privilege reserved for a few temples (Bêl, Zeus Kyrios, Aphlad). The late J7 buildings, and those of which traces survive in J8 and into K7 (below), mark a break with this tradition. Although no graffiti were recorded which might confirm it, the resemblance of the J7 buildings to other military accommodation at Dura, especially at X7 by the 'Dolicheneum', their proximity to the purely military Mithraeum, and their apparent extension as far as but

not beyond the 'camp wall' by Tower 21 all confirm them as accommodation built by and for the garrison community.

Chronology

The brief published account is very definite about the chronology, asserting a 'general destruction of the quarter about 210 A.D.' (PR 7/8, 70), and that J7's 'later structures date from the period after 216 A.D., when the Roman camp wall was built and the town plan to the north of it abandoned' (PR 7/8, 64). In fact, the date given for the camp wall is derived from highly questionable epigraphic arguments (p. 135). The idea that all extant grid-aligned buildings in the J7 area, including the house Mithraeum which itself was 'razed to bench level', were demolished c.210 prior to irregular rebuilding, also appears to derive from epigraphic arguments. Inscription no. 847, datable to between 209 and 211, commemorates the 'restoration' (*res(titutum)*) of the temple by legionaries (PR 7/8, 63, 85). However, this was not found *in situ*, but in fragments 'in the fill' (PR 7/8, 85). Full consideration must await new publication of the Mithraeum evidence, but the association of this dated inscription with the archaeologically attested demolition of the early shrine and creation of the Middle Mithraeum is an inference, if a compelling one. At this stage, the Mithraeum, hitherto adjunct to a house, became an entirely free-standing structure, with space on all sides. However, early foundations beam sockets and other traces in the walls indicate two phases of building between the Mithraeum and city wall before, in its final form, an alleyway was cleared behind the temple. The foundations appear to be contemporary with the Early Mithraeum, i.e. the later 160s, allowing up to ninety years for the sequence. Indeed, since this area incorporates the location of the Mithraeum founded in the 160s by the officers of the force of Palmyrene *symmachiarii* who must have been accommodated somewhere in the city, it is proposed that the area of irregular accommodation around the temple was initially constructed by and for them. The structures remained in continual occupation, albeit with significant rebuildings attested by existence at some points of multi-phase wall-socket sequences indicating successions of buildings against the city wall, throughout the Roman base period.

This reinterpretation of the sequence and chronology makes much better sense of the available data. It seems that, for J7 as elsewhere at Dura, excessive extrapolation by the excavators of a single epigraphic date was combined with sweeping and over-confident assertions about the phasing of the entire area created an illusion of certainty about sequence and chronology.

How Far N Did Buildings Extend along the City Wall?

On the N side of J7, there is reason to believe that buildings did not stretch any further along the wall. As they removed the embankment, the excavators encountered no further traces of buildings to the N, where the inner face of the city wall had

been given an additional mud-brick thickening (Leriche's '*placage A*': p. 148). This is heavily eroded, but its existence precludes continuation of rooms on the line of J7-17 to 20, while its remaining face contains no clear rows of beam sockets.

It is possible that buildings against the defences had been cleared to allow construction of '*placage A*', but there is any way reason to expect that construction would have stopped at about the position of the N edge of the J7 excavation; it roughly marks the nominal N end of block J7, and the nominal position of '12th St', a line clearly marked to the E by the N wall of the 'House of the Prefect' in J1. It is suggested that this street-grid line was generally respected, as the S boundary of the substantial plaza existing around the Temple of Bêl.

This could also explain the curious extent of the mud-brick wall thickening '*placage A*'. It is suggested that this was built only up to where there were already buildings against the defences. It may seem strange that extant buildings should be prioritized over enhancement of the defences; however, the wall thickening may have been more a constructional than a defensive feature, intended to support and stabilize the relatively thin, weak, and damaged extant mud-brick curtain during the major project to strengthen its outer side, more than to

add significantly to the military strength of the defences. Perhaps the military surveyors and engineers judged that the solidity of the adjacent Tower 24, and existence of standing buildings against the defences, provided adequate support for the old wall during work on the exterior, flanking Tower 25.

MILITARY HOUSING ALONG THE CITY WALL IN J8 AND K7

The S limit of the J7 excavation stopped short of the projected line of 10th St. It is, however, clear that, at least at one stage, buildings existed against the city wall well to the S of those exposed around the Mithraeum (Fig. 5.70). The Detweiler city map shows walls projecting from Tower 22, analogous to the rooms in front of Tower 24. These also appear on the different plan published by (Rostovtzeff 1938, fig. 6: archive General Plan N.2), which further indicates a building blocking the former course of 10th St between A St and Wall St, and walls abutting the S half of the curtain between Towers 22 and 21. None of these were visible on the ground in 2010, but other evidence

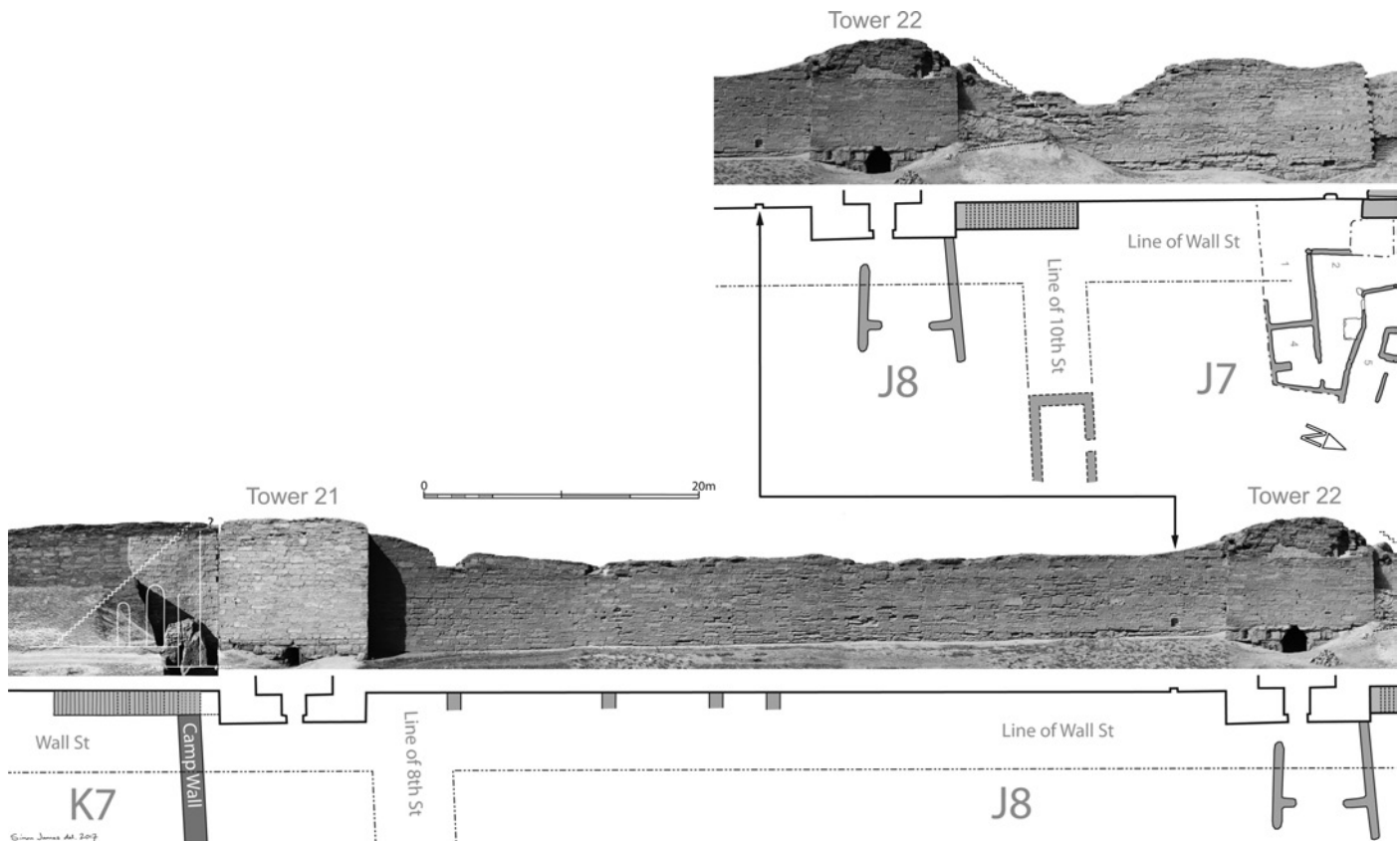


Fig. 5.70. Plan of archaeological features within the line of Wall St around Towers 22 and 21, including building plans, the origin point of the camp wall and late city-wall access stairs; with photomosaic wall elevation and schematic reconstructed elevation of the camp wall and stair. The photography is mainly 2008 imagery.

remained very clear. Further series of beam-holes were to be seen cut into the stone defences, on the faces of Tower 22, along the curtain to its S, and on the walls of Tower 21, ending just to its S. There is even a stone-cut niche S of Tower 22. It seems, then, that buildings were constructed against the inside of the city wall, perhaps continuously, the entire length of block J8 as well as J7, and also at the NW corner of K7. However, their foundations were either wholly obliterated in building the rampart or—more likely—the excavators chose not to fully expose them since those in J7, having been dug first, had proved unproductive of ‘important’ artefacts.

It is unlikely to be an accident that there are no further indications of such beam holes to the S of those by Tower 21. The sockets stop precisely where Wall St was formally cut by construction across it of the mud-brick camp wall, S of which point Wall St seems to have remained open until the rampart was raised.

MILITARY HOUSING ON THE S SIDE OF 8TH ST: K7, K5, K3, F7, AND F5

The line of the camp wall and the position of the amphitheatre suggest that all civilian properties facing onto the S side of 8th St from the city wall to at least F St were taken over by the military. This comprised the N ends of blocks K7, K5, K3, F7, and F5. Apart from the first, these were standard rectangular city blocks. Magnetometry (Pl. VIII) and limited excavation indicates that most or all had a pair of roughly square houses at its N end, similar to those excavated in K5. The truncated lengths of roadway between the camp wall and 8th St were filled in with additional buildings, certainly in the cases of C and D St and possibly at A St, creating a continuous S frontage to 8th St. B St with its gate, and E St were left clear (Figs 1.12 and 5.1).

Block K7

All we know of the small fragment of K7 included within the military base was discussed with the camp wall (p. 131). It seems that the short stretch of Wall St between Tower 21 and K7 was built over like Wall St to the N, and other stretches of blocked-off streets to the E, but beyond that no detail survives.

Block K5

The N end of the otherwise-unexcavated K5 comprised two approximately square houses partially dug by Yale. Substantial alterations were made to them in the military period, resulting from the driving of the camp wall through their southern ranges. These houses were exposed in connection

with work on the camp wall, the line of which ran through the S part of each house, thus enclosing the bulk of each building inside the base area. Yale effectively revealed the entire plan of the NE house (K5-A: Baird 2014, Appendix), including its party wall with a third dwelling to the S, although islands of unexcavated stratigraphy remained. Only a small part of the NW house (called here K5-B) was explored; air photos (Fig. 1.12) show that spoil from the K5-A house was dumped by rail cars over K5-B, A St and K7. Lying in a slight hollow, in 2005–10 K5-B was further obscured by dense undergrowth. In the following, the room numbering used is newly created.

Discovery, Excavation, and Recording

The K5 houses appear in a preparatory plan by Detweiler for his city map. He depicted the S parts of the houses as distinctly off-grid, but this was his survey error which put a non-existent kink in the line of the camp wall. Modern survey and air photography show the house plans and camp wall closely followed the city grid. Detweiler also drew some walls a metre out of their true position and missed important features, although his drawing records other things such as door blockings lost by 2005.

There is no mention of their excavation in the *Preliminary Reports*, the preface of the relevant volume warning that not all work undertaken in those seasons was discussed (PR 7/8, vii), although they appear to be referred to by du Mesnil, who wrote that the houses traversed by the camp wall were transformed into barracks or stables (du Mesnil 1935, 276–7). No specific photographs of these buildings survive, although they appear as middle-distance details in a photo (Fig. 5.57). Neither are there any plans or notes; however, a handful of entries in the finds registers fix their excavation to November 1933, January 1934 and January 1935. This fits with the line of the camp wall across K5 being followed during the seventh season, logically by du Mesnil’s team which was excavating N along the city defences from L7 (PR 7/8, 1). The K5 houses through which the wall ran were then partly cleared during the eighth season, apparently by Brown (PR 7/8, 2). In 2005, the area was examined, photographed, resurveyed, and planned by the writer and Jennifer Baird (Fig. 5.71; James 2007b, 9–11; Baird 2014, 126).

Little can be said about K5-B forming the NW corner of the block (Fig. 5.1). Detweiler’s preliminary city-plan drawing shows two street doors, one W onto A St near its NW corner, the other N onto 8th St at its NE corner. The latter, rather bigger, was probably the main entrance, and via steps down from the higher street level gave into a long lobby or private alley (2) not accessible from K5-A. A door in the W wall of this alley was located, leading almost certainly into a central court (1). Inspection in 2005 suggested that the S part of this space (3) may have been walled off or perhaps separated by a

door. It also identified another doorway on its W side not marked on Detweiler's drawing (3–4), just N of where the camp wall was constructed; this had been blocked on excavation (its jambs are discernible in Fig. 5.57). Little further is known of the mostly unexcavated interior of the house, except that its S area, cleared to reveal the camp wall running through it, was divided into two broad rooms with a narrower space between. Within K5-B's SE room the camp wall was built to a slightly narrower gauge or a niche was cut into it.

Almost the entire plan of house K5-A was revealed (Fig. 5.71). Much could be seen in 2005, despite presence of slumped blocks of unexcavated material and serious erosion of some parts: a lot of the E wall has vanished, some doorways disintegrated, and the camp wall had dissolved to a mound. The house walls, of standard Durene rubble-in-mortar, were preserved to a height of no more than c.1.2m.

The house appears originally to have been a modest Durene dwelling with a single entrance from the E at its NE corner, leading via steps down from the street through a lobby (2) to a left turn (3) debouching into a central court (1), as usual invisible from the street. As is common, the largest room, with a prominent doorway (axial to the room but not the court), was on the shady S side (8). This provided access to a narrow private inner room on its W side (7), apparently also accessible from the W room (6), and to a larger room at the SE corner of the building (9). The last was also the innermost of an E range of three rooms (9, 10, 11) accessed from the E side of the court, at least in a later form: there are indications that there had been a door at the SE corner of the court directly into narrow lobby 10, at some stage blocked. The W side comprised a single room with prominent axial door (6), which may have had access to the low narrow space under the stair to the roof (5) on its N side. The N side boasted a similar but smaller room (4), which also possessed a small inner chamber within the well of stair 5 running off the NW corner of the court.

K5-A shows alterations consistent with its conversion from accommodation probably for a single Durene household to multiple occupancy, presumed to be by soldiers and their dependants. Notably, this comprised construction of rubble walling in the court to create an additional space, perhaps roofed, on the N side of the door to the W room (12). Detweiler's plan and Fig. 5.57 show that the door between 8 and 9 was sealed, apparently forming a niche on its E side. Detweiler also shows door 8–7 blocked and turned into a niche in the same way, but this appears to be a mistake: Fig. 5.57 shows the door open; rather, it was door 7–6, missing from Detweiler's plan, which had been blocked as may also be seen in the photograph. This blocking looks to have been in stone, and may have been a pre-military, civilian modification turning the door into a niche. The result of the various access changes appears to be to create four separate units around the court during the military period: three-room unit 9–10–11 on the E side; 2-room unit 8–7 on

the S side: a much smaller 2-room unit 4–5 on the N side; and a fourth comprising 6 and perhaps under-stair space 5. 'Coolers' were in 2005 found deposited in the N room off the court, but may have been moved there by the excavators. More likely to be *in situ* were remains of a *pithos* or *dolium* identified on the wall line of the rubble structure in the court by the stair access (12). This was most likely an oven set into the wall, of the type seen at the NW corner of E8, and perhaps indicates that 12 was a cooking area.

The camp wall was discussed above (pp. 131–133), but at this point (Fig. 5.60) its line seems to have been determined on the basis of creating a narrow but distinct boundary strip and physical barrier between continuing civil occupancy to the S and the military occupation to the N. The line of the new curtain wall substantially reduced, but did not obliterate the S ranges of rooms in the K5 houses, suggesting they remained in use. The wall was built in a curious but effort-minimizing manner (Fig. 5.71). The mud-brick superstructures of the S rooms were demolished to clear the path for the camp wall, but the substantial chest-high mortared-rubble substructures were left intact, and stretches of mud-brick camp wall foundation were built between them; it would then have been continued upwards as a continuous curtain. Presumably then new walls and roofs were built for the reduced rooms on the base side. As all traffic through the B St gate had to pass its street door, K5-A apparently served as guard house for it, as J1-A8 was for the gate across D St.

It should be noted that the military conversion of the K5 houses need not have occurred at the same time as the camp wall was built; it could well have preceded the wall, initially relying on party walls with the civilian housing to the S as the boundary, as apparently always remained the case in blocks F7 and F5 (below).

Blocks K3 and K1

The camp wall was revealed by Yale to run E from the gate at B St, across K3, C St, and K1, also blocking D St and apparently terminating against the street frontage of F7 (Fig. 5.1). Magnetometry of K3 (Pl. VIII) seems to be consistent with the wall running through the S ranges of two squarish houses, just as in K5. K1 was apparently similar, but this is less clear. The Detweiler map and preparatory drawings show excavation tracing the camp wall also located perpendicular wall lines on its north side in K3, representing civil house walling (the S side of the wall was not excavated here).

The short stretches of C St and D St cut off between the camp wall and 8th St were walled off at the N end as well, making the 8th St frontage continuous here. These areas were likely roofed over to provide additional accommodation (the Detweiler plan, also indicates N–S walls on the line of D St), imitating the infilling of the line of Wall St from behind Tower 21 to Tower 25.

Blocks F5 and F7

These blocks lay between the known end of the camp wall on the E side of D St and the amphitheatre across F St. It is presumed that what appear, from the magnetometry results (Pl. VIII), to be a pair of squarish houses forming the N end of each block facing onto 8th St were also taken over by the

military. However, as detailed above (pp. 133–135), there is no indication that the camp wall continued across F5 and F7. The limit of military occupation in the two blocks was therefore presumably marked simply by the S boundary walls of the requisitioned houses. Magnetometry indicates that there were indeed substantial property boundaries on the appropriate general lines.

The Plateau Zone East of G St

The N end of the city's plateau zone E of G St, bounded by the N wadi, the river cliff, and the head of the inner wadi, comprising the remotest corner within the walls, also became part of the Roman military quarter (Fig. 6.1). Here, as across the whole N part of the city, the stratigraphy is shallow, rarely deeper than a metre, with bedrock showing in places. Surface indications and magnetometry suggest that much of the region had been built up in pre-Roman times, although there may have been areas of open ground. The street grid had been substantially laid out here, especially H St which ran to the N city wall, but E of this line it seems partly to break down. In particular, in the nominal areas of projected block positions X1–X8, 10th St actually curved off-grid to the S, probably preserving the line of an early approach road to the N end of the Citadel before the stronghold was separated from the plateau by a great quarry and rebuilt.

This far N region was presumably mostly residential before AD 165, except for two known sanctuaries beside H St: the so-called Dolicheneum in X7, and a temple of unknown dedication in X9. Under Roman rule it became dominated by insertion of the massive residence known as the 'Palace of the *dux ripae*', here referred to as the Roman Palace.

Closures of both G and I Sts on the N side of 10th St, by the building of Roman structures across them, indicates that the zone N of this line became a military enclosure. This was accessible from the civil town only via an entrance on H St, and from the W part of the base area on the plateau, already enclosed by a boundary along the W side of G St, via a smaller entrance on the diverted line of '12th St' at the N-most point of block E3 (Fig. 5.5).

Within the re-entrant to the continuous base perimeter created by the G St and 10th St lines, more blocks appear to have been taken over by the military. Immediately SE of the G/10th St junction, extensions from block E2 encroach onto G St, comparison with J2 and other blocks indicating it had been converted to soldiers' housing. This would take military control to the 8th/H St junction, which it will be argued was a critical focus in the layout of the base. It is therefore proposed that control of the S frontage properties along 8th St also included the N part of F1 opposite E2, E of which the small area between 10th St and the lip of the inner wadi was also likely taken over.

THE ROMAN PALACE ('PALACE OF THE *DUX RIPAE*'), BLOCKS X3/X5

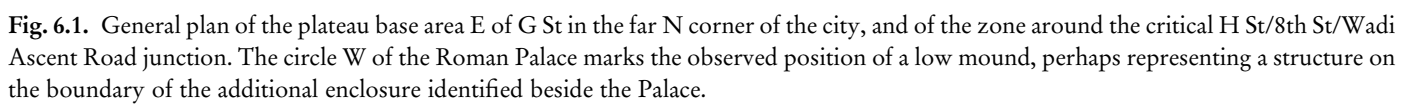
Excavation, Recording, and Publication

The so-called 'Palace of the *dux ripae*' (here renamed the Roman Palace: below) is a very large peristyle residence in the E part of the plateau base zone (Fig. 6.1). At a pronounced angle to the city grid, it was laid out in relation to the line of the river cliff, resulting in an orientation close to true N–S. Including its flanking E loggia and W baths, its frontage overlooking the river ran for c.90m. The complex stretched 87.5m back from the cliff (PR 9.3, 2), to an axial entrance opening onto 10th St (Figs 6.2 and 6.3).

The Palace was mostly excavated in the ninth season (PR 9.3, 1–96), although it was marked by an obvious mound which attracted attention during initial exploration of this quarter of the city, exposing what turned out to be its associated baths in the fifth season, briefly reported by Hopkins (PR 5, 289). The residence was excavated by du Mesnil and F. W. Comstock during the winter of 1935–6. Brown recorded the texts and Detweiler surveyed the building (PR 9.3, v). The best-known artefact from the excavation was a spectacular gold brooch, perhaps lost during the sack of the city. It was actually found just outside the Palace, behind rooms 45–9 (Fig. 6.4; PR 9.3, 58–62, pl. 12).

Subsequent progress to publication, as the last *Preliminary Report* volume to appear, was especially fraught. Brown initially oversaw it, but war stopped involvement of the excavators, with Rostovtzeff taking over until 1944. Welles completed the draft report, but his own military service meant there was a hiatus until Ann Perkins restarted work on it in 1949, editing and seeing it through the press (PR 9.3, v). The plan (PR 9.3, fig. 7) only showed part of the bath, otherwise published just as a tiny detail on Detweiler's city map.

In addition to photographs and finds records, the Yale archive preserves Detweiler's publication drawings, an undated eight-page typescript titled 'Information on the Palace of the Dux and the Dolicheneum from reports and letters', and a notebook containing annotated sketches on the painted wall- and ceiling-plaster finds. Three aerial-view



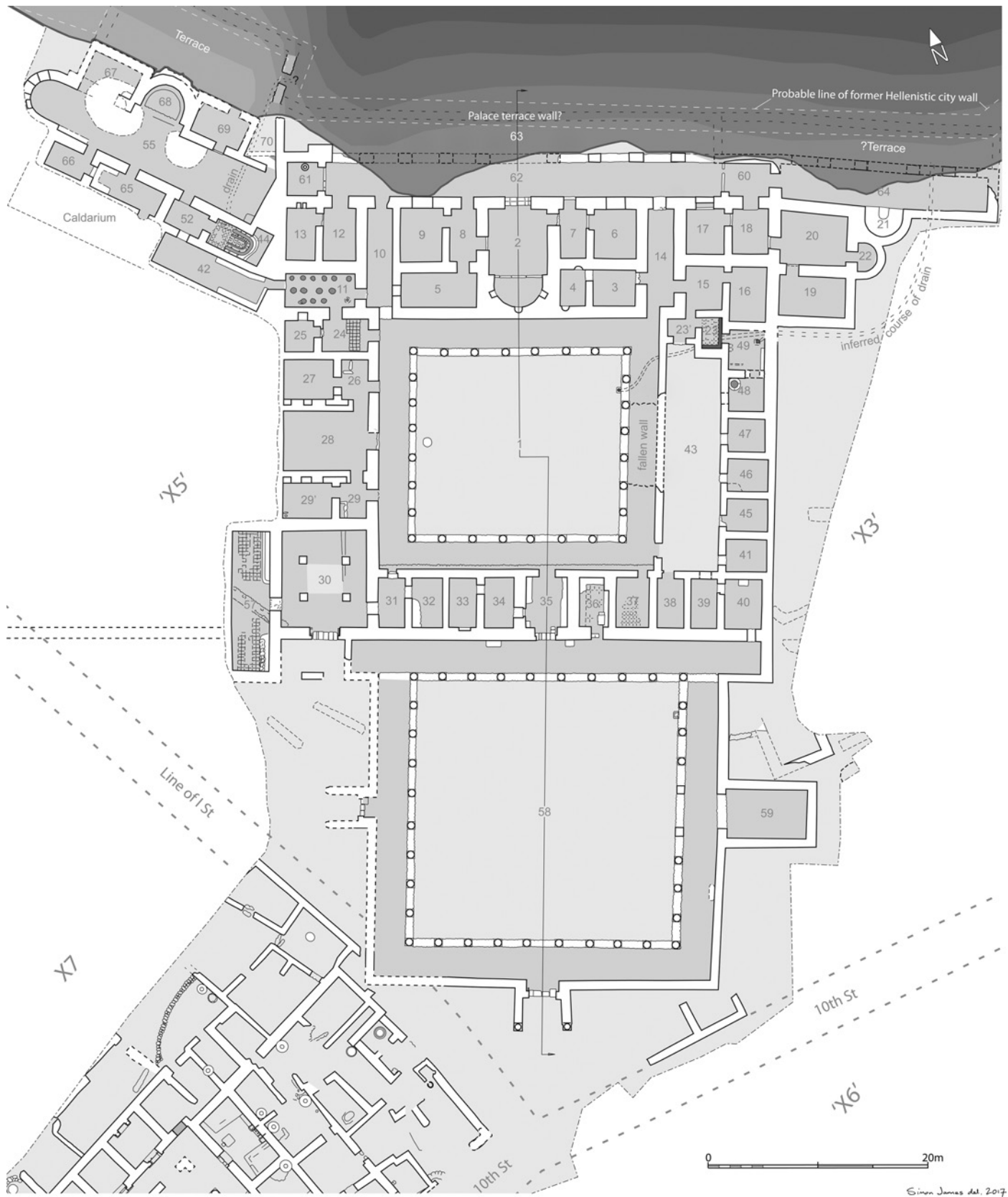


Fig. 6.2. The Roman Palace complex, including part of the apparent additional service yard for its bath in 'X5' to the W.



Fig. 6.3. The Roman Palace from the S, after excavation (top) and in 2010.

reconstruction drawings were published, two by Detweiler (*PR* 9.3, figs 1 and 2), another by Gute (Rostovtzeff 1938, pl. X.1).

Limited further fieldwork was conducted in 1988 by Susan Downey, who undertook some selective re-excavation, especially on the E end of the river frontage, leading her to propose that this part of the Palace was an addition (Downey 1993).

The building stands out at Dura for its large scale and intrusive nature, having clear architectural parallels elsewhere in the classical world. Its supposed close association with the

enigmatic office of the *dux ripae* also has broad implications. A detailed literature-based review of the Palace was published by Schäfer in a wider study of provincial governor's palaces and equivalent residences (Schäfer 2014, 308–24). Following Downey, he proposed in effect three phases at the site, arguing the bath was pre-existing, and that building of the main residence abutting it was later followed by extension to the E. His discussion also accepted the excavators' notion that the Palace was the residence of the *dux ripae*, now discredited (pp. 175–177).



Fig. 6.4. An early-third-century-style gold fibula set with a dark green stone intaglio depicting Narcissus, 88mm high, found just outside the Palace.

In 2010 the remains were generally in a state typical for Dura, perhaps rather worse than some due to the shallowness of stratigraphy in this part of the site and their particular exposure to the elements (and visitor's boots) along the cliff (Fig. 6.12). Mud-brick walls had mostly slumped to mounds, while some, like those marking the W side of court 58, were originally mud brick from ground level and had completely washed or blown away. Little plaster survived, except in the massively built and sheltered masonry apse of Room 2. The partly excavated bathhouse, another substantial structure still part-protected by the mound covering its unexcavated section, was also quite well preserved. However, while erosion had obliterated much of the evidence seen in 1936, it had also exposed some constructional features hidden at the time, notably around room 28. Finally, while the eroding cliff edge had taken little more of the complex than was seen in the 1930s, it was apparent that the main riverside range is being slowly undermined.

Reanalysis of the Palace is based on restudy of the published and archival material with further fieldwork conducted in 2008 and 2010. This comprised close examination and blanket photography of the remains, resurvey of the complex, and cleaning and examination of a number of areas, notably recording the W bath and other undocumented features around the entrance to Room 30.

The following offers a new account of the remains, critique of the published account and reinterpretation of the Palace. The room numbering employed in *PR* 9.3 is extended to 71 to cover hitherto-unnumbered spaces in the virtually undocumented bathhouse. However, limited time did not allow a fully detailed re-study of the evidence from this sprawling complex, which would also require specialist architectural expertise. Nor does space permit repeating the detailed descriptions in the *Preliminary Report*, in conjunction with which the following should be read.

Naming the Building

We have no evidence for the original name of the 'Palace of the *dux ripae*', supposedly a regional military commander. This label, devised by the excavators, was based on a number of texts found on the walls and is at best misleading. The *Preliminary Report* constitutes 'text-driven archaeology' at its most extreme, in that informal dipinti mentioning a *dux ripae* were given complete priority in interpretation (so Gilliam: *PR* 9.3, 93). The entire published account became predicated on the assumption that the complex was built *ab initio* as the residence for this supposed official, presumed to have been based at Dura. However, the nature of the office of the *dux ripae*, and even its very existence per se, have come under fierce critical scrutiny (pp. 175–177). Yet even leaving this critique aside, reassessing the strictly archaeological evidence raises doubts about the likely original purpose—or purposes—of the building. It will be argued that the building was constructed before anyone called '*dux ripae*' is attested, and before there was any reason for a regional military command to be established, if one ever formally was. The complex likely had multiple intended functions from the outset, and in practice served more than one purpose during its lifetime, undergoing modifications. Nevertheless, this evidently residential complex is indeed palatial in the context of Dura, and impressive by wider Roman provincial standards. Dura also has other buildings known as the 'Palace of the *strategos*' or *Strategeion* (formerly 'Redoubt Palace') and the 'Citadel Palace', both of which may be relevant to the significance of the Roman complex (p. 176). It is therefore distinguished here as the 'Roman Palace'.

Overview of the Palace Complex

The complex lies at roughly 45° to the Dura street grid. Its long axis lies c.22° E of true N. For simplicity the following discussion uses a local site N, the end of the long axis of the layout pointing towards the river.

The residence appears to have been single storey throughout (Fig. 6.5). In marked contrast to the J1-A house, *principia*, and typical civil dwellings in the city, there is no stairwell giving formal access even to the roofs, which likely varied considerably in height across the building. While both walls and roofs were built in versions of local technique, the absence of roof access is not the least of many 'un-Durene' features of the Palace.

The main complex is tripartite: a riverside range articulated around the cliff-edge corridor (probably arcaded loggia) 62, and two peristyle courts, 1 and 58. The river-facing element comprised a two-deep range of rooms, well appointed and, in the case of the axial room 2 (Fig. 6.6, a), very grand, facing onto loggia 62 (Fig. 6.6, b), which was apparently fronted by an open terrace along the cliff edge (63), now almost

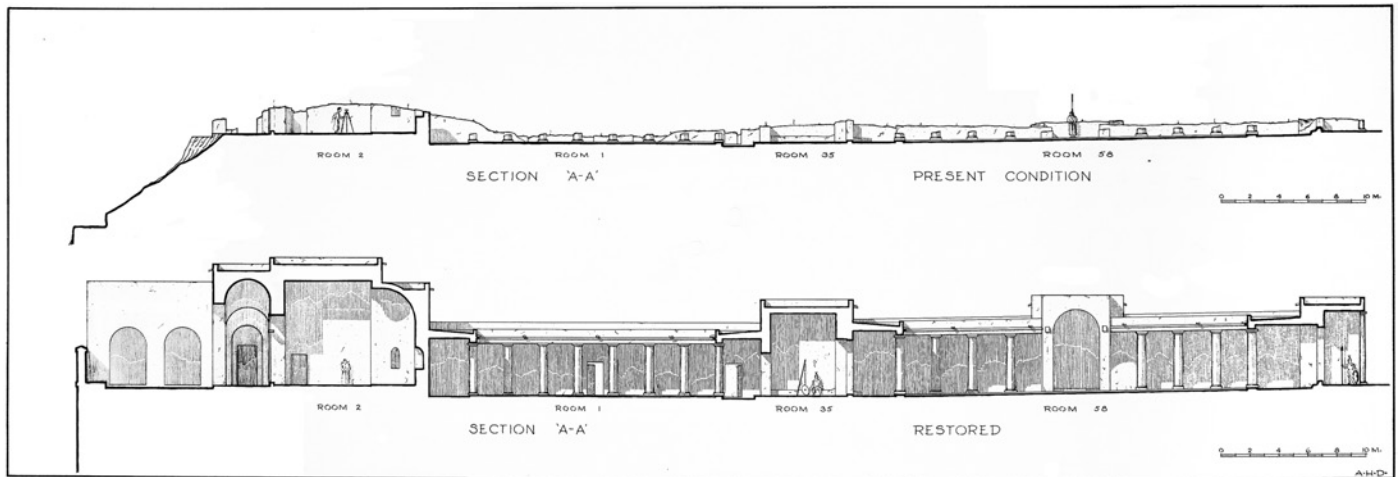


Fig. 6.5. Detweiler's elevation of the Palace. The line of the cliff facade (L) was probably incorrect.



Fig. 6.6. The newly excavated Roman Palace: a. the apse of room 2; b. view along loggia 62; c. apse 21 with wall painting; d. room 11 giving access to the bath, with holes in the floor for inset pottery vessels.

completely lost. This terrace afforded fine views of the Euphrates (*PR* 9.3, 1).

Behind the riverside range lay a peristyle inner court (1), focused on a further suite of major rooms on its W side laid out symmetrically around another grand axial room (28). Beyond the blank wall forming its E side lay a subsidiary court (43), largely hidden from view, with access both to court 1 and the riverside range. Court 43 had small rooms suitable for servant accommodation, mostly on its E side, with latrine and ablution facilities at its N end. The S range of court 1 was given over to ancillary rooms, and main entrance from the S (35).

Finally, to the S of the court 1 complex lay a second, larger peristyle court (58), with an axial feature on each side: three entrances and, on the E, the only room off the court, the large space 59. In the S, an external door with columned porch opened onto 10th St. Directly opposite this on the N side was the door through 35 to court 1. On the W side of court 58, directly opposite room 59, lay another doorway, apparently much like the S portal in form, giving onto the line of I St and leading into the N part of the base area.

Its two peristyles were laid out southwards from the cliff-oriented range, on the same orientation but slightly different axes. The riverside range and the ranges around court 1 form a compact, roughly square arrangement, fairly symmetrical around an axis running through room 2 and across court 1. Court 58, also largely symmetrical, is actually arranged about a different axis, which runs from the S street entrance across the peristyle and through room 35. This axis lay exactly one court-1 intercolumniation E of the axis of the N block.

The complex sprawled beyond the roughly orthogonal footprint of the main plan. A stable, certainly an addition, was built on its W side (57) accessed via the tetrastyle room 30 from the line of I St. More substantial were extensions along the river frontage to both E and W. To the E lay further residential rooms and, extending the general line of loggia 62, an additional but separate loggia (64), stretching c.20m further on a slightly different alignment. This extension had an axial apse (21). W of the main block, at a more marked angle to it, lay a substantial bathhouse directly communicating with the Palace and, apparently lacking any other entrance, intended solely for the use of its occupants. There may also have been a further large, hitherto unrecognized service yard behind the bath (p. 173).

Except for stable 57, apart from minor changes such as blocking of doorways, the main part of the Palace from terrace 63 to the door onto 10th St appears to have been built as a single conception. The differing orientations of the bath to the W, and the projecting E riverside suite might seem to imply they were afterthoughts. Schäfer has argued, on the basis of its orientation (but no stratigraphic evidence) that the bath was earlier than the Palace (Schäfer 2014, 313, 317). The excavators provided no clear observations regarding stratigraphic relations between them (*PR* 9.3,

25–6). In the published plan, the walls of bath and residence were distinguished as hatched and solid respectively (*PR* 9.3, fig. 7). In 2010 this area was heavily eroded and obscured by slumped mud brick making it impossible to check without substantial re-excavation, but it is likely that the distinction in the drawing just interpretively defined the two built spaces, but did not record a structural boundary. Moreover, the size and location of the bath only makes sense in terms of the Palace, suggesting it was an integral part of the scheme, while its orientation relative to the main residence is clearly explicable in terms of the irregular line of the cliff and city wall (below).

Conversely, Downey has argued that the entire projecting block on the E ‘may be a later addition’, based on what she regarded as ‘clear evidence of rebuilding’ (Downey 1993, 188). Schäfer followed Downey, proposing that this extension and various other modifications constituted an undated ‘Period II’ (Schäfer 2014, 319–20). Downey presented a detailed argument, based on local cleaning and limited re-excavation, for a discontinuity along the junction between the main orthogonal Palace block and the rooms to the E, comprising lack of bonding and sudden changes in constructional technique (Downey 1993, 187–90). However, there are (to us) bizarre-looking construction practices elsewhere in the Palace, which similarly involve sudden and incomprehensible changes in technique from one wall to the next. The explanation may be that walls not expected to carry special loads like vaults or domes were raised to the required heights based on available materials; if there was a shortage of mortar, less masonry and more mud brick was employed, resulting in stone foundations varying almost randomly in height across the building from one wall to another. Once plastered, all walls looked the same. Downey may well still have been right about a structural discontinuity along the line between 16/18 and 19/20, indicating that the latter were subsequent additions to the original concept. But there remains the possibility that these two rooms, at least, were simply built as a later constructional stage of the original conception, and indeed this is indicated by another important observation. The gap she identified through the S wall of 64 (Downey 1993, 188, figs 5 and 9) is best explained as collapse of the wall into an underlying drain. This was almost certainly the line of the covered channel carrying rainwater from court 1 and effluent from latrine 23 and ablution facility 49 to debouch over the cliff. Significantly, there is a similar breach in the main outer wall of the Palace where the drain line ran from room 49, caused by centuries of post-abandonment storm run-off from the court 1 area flowing downhill to this point and undermining the wall, a process repeated at room 64. The S and E foundations of 19, while eroded close to ground level, were intact in 2010 indicating that the drain line respected the projecting corner, and also kept clear of apses 22 and 21, passing only under the relatively modest construction forming the far end of 64. Unless the drain had been

redirected, this indicates that the E block was after all part of the original conception.

On present evidence, the Palace is best seen as a single complete conception which subsequently underwent limited and incremental subsequent modifications, mostly confined to door blockings except around hall 30 (pp. 174–175).

Siting, Orientation, and 'Fit'

The orientation of the Palace complex lies far off that of the city grid. This raises the more general question of the rationale for the siting of the Palace, its orientation, and how it fitted into the pre-existing city fabric.

Clearly the main reason for the highly eccentric orientation of the complex was prioritization of its river-view frontage: the main, or innermost, range of the building was laid out with respect to the cliff edge, and the other courts from that. Doubtless this was for *amoenitas*: probably at least as significant as the grand view of the Euphrates valley was that building a N-facing portico or loggia on this lofty vantage point provided shady spaces which, in the blisteringly hot summer months, would also catch any river breeze. It was the prime residential location in the city. At the opposite end of the complex, the axial S entrance also articulated carefully with a junction on the city street grid; but first the riverside frontage is discussed. Understanding this key part of the Palace setting requires consideration of the conformation of the cliff, and the Hellenistic defences which preceded the Palace.

We do not know the exact line of the cliff at the time the building was laid out. The course of the river c.2010, right under the cliff at this point, made surveying the form of the plateau edge difficult, but considerable progress can be made on the basis of Total Station data, observations on the site, and photography, including aerial imagery. This suggests that existing reconstructions of the city defences, in relation to which the Palace was built, are erroneous.

Detweiler's city map (Pl. VI) reconstructed the cliff as totally sheer and roughly straight all the way from Tower 5, the northernmost point of the defences, to the artificial ravine quarried to isolate the Citadel from the plateau. It showed the city wall running along the cliff edge, on a line passing some 7–8m N of the Palace portico, on which basis a broad terrace, some 7.5m wide, was inferred (Palace area 63). However, this cannot be correct.

Air photographs (Fig. 6.7) show that, in the 1930s as in 2010, much of the cliff was, indeed, more or less vertical. N of the Palace the city walls, parts of which survive near Tower 5, were actually constructed on a projecting gypsum stratum roughly 10m below plateau level (Fig. 6.8). The ashlar curtain was built up to plateau level, the intervening gap infilled to create a terrace, above which no more than a parapet was needed. Unlike the W city defences which had to stand high

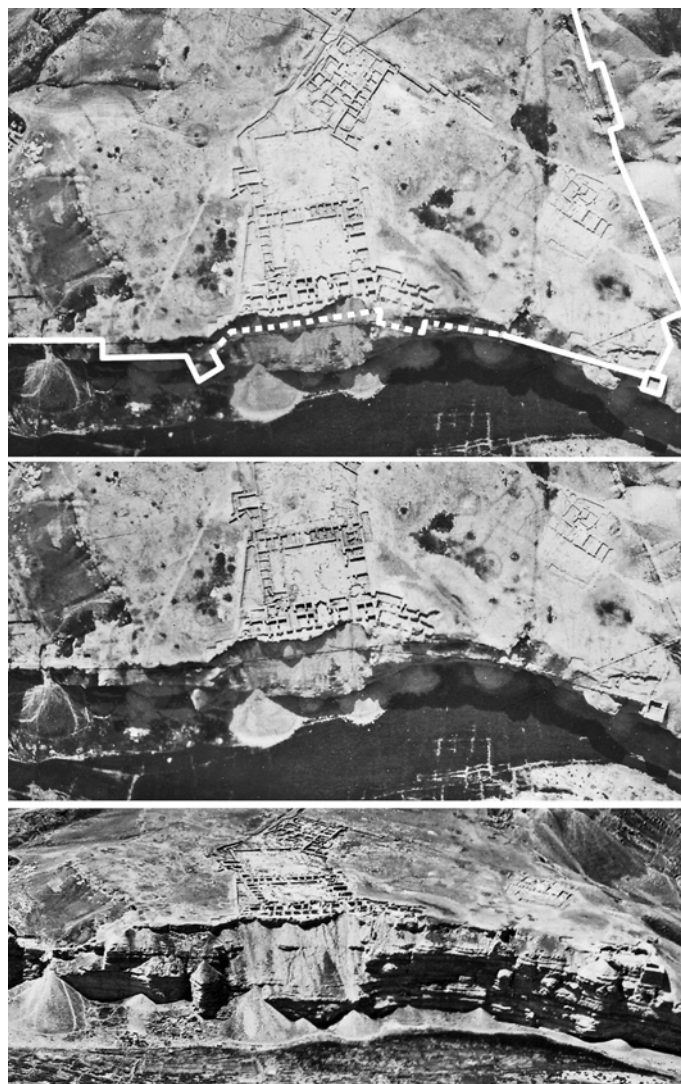


Fig. 6.7. Details of air photos of the river frontage around the Roman Palace, vertical and oblique. These images show the quarried vertical face S of the site of the Palace, including the rock-cut foundation of the square tower 5a (L). The course of the cliff-top city wall near Tower 5 (R) is clear. Below the Palace site, solid strata emerging from the scree part-way down the slope indicate that this was, in Roman times as today, a steep slope rather than vertical face. Top, proposed reconstruction of the line of the Hellenistic wall circuit on this stretch.

above plateau level as they faced level ground, on the river side the plateau edge commanded a c.35m drop (Fig. 6.9).

SE of the Palace frontage position the plateau edge had originally been a ragged slope more than a cliff. Hellenistic times saw a major programme of quarrying the slopes within and surrounding the city to improve defence and provide building materials (Bessac 2004). Perhaps most dramatically, a large section of the spur of plateau linking the Citadel with the zone later occupied by the Palace was entirely removed,



Fig. 6.8. Centre, the city wall running S from Tower 5 towards the Roman Palace (the mound of its bath is on the skyline, with the piers of loggia 62 on the cliff edge beyond, and the Citadel in the distance). Here the city wall is seen built on a stratum of gypsum well below the level of the plateau surface which had already collapsed when it was built. The space behind was filled in to plateau level. Beyond the Palace, the square, rock-cut base of wall tower 5a is seen projecting at L.

except for a living-rock stretch of city wall (Fig. 6.9). Between this quarry and the later Roman Palace site, the existing sloping plateau edge was also partly cut into a vertical face, and apparently topped with masonry superstructure carried to plateau level and infilled behind, as to the NW near Tower 5.

Photos taken from the river and from the air show a large, squared mass of rock projecting from the end of this vertical face running N from the Citadel quarry, close to the Palace site (Figs 1.15 and 6.7). This appears to constitute the quarried foundation of a large square projecting tower, here called Tower 5a. Designed for a now-lost masonry superstructure, it resembled Tower 12 in the S wadi (Fig. 6.10) and the N towers of the Citadel. However, the apparently surviving top of the rock-cut foundation suggests at least half its great

height was constructed in masonry. The tower is shown in an MFSED reconstruction, although its orientation is incorrect (Leriche 2004, fig. 8; Leriche et al. 2011, fig. 1.14). At c.40m high, Tower 5a would perhaps have been the most massive and impressive tower in the circuit. It also stood at a distinct angle to the quarrying on its SE side, for reasons discussed below.

Subsequently, at an unknown date, the wall and tower superstructure SE of the Palace site tumbled into the valley, leaving a massive rock pile below, still distinguishable from adjacent cones of Yale spoil. It is possible that the collapse was a consequence of the AD 160 earthquake which certainly brought down a stretch of the N wadi defences (pp. 51–52 and 75), in which case this stretch of the circuit was already much as we see them today when the Palace was built.



Fig. 6.9. Schematic reconstruction of the late Hellenistic city defences between the Citadel (L) and Tower 5 (R). Except perhaps a stretch of higher walling around Tower 5 to foil infiltration from the N wadi, all of this was constructed on projecting strata at levels well below plateau level, the space behind infilled to create a terrace needing no more than a parapet above the 40m river cliff drop. However, the somewhat more vulnerable sloping re-entrant below the site of the future Roman Palace was dominated by the massive Tower 5a.



Fig. 6.10. The S wadi, showing how the side of the wadi was quarried into a vertical defensive face, here with a rock-cut projecting base for the masonry superstructure forming Tower 12. At L, spoil tips from Yale's excavations.

The stretch of city perimeter beneath the Palace itself is today a c.45° scarp. In part this is doubtless a consequence of the cliff-falls which carried away part of portico 62 and terrace 63. The result is that the original city wall line, and supposed terrace wall on top of it, are lost in this area. However, aerial photographs (Fig. 6.7) show *in situ* strata projecting below the Palace, which effectively prove that this section was a steep slope in Roman times as well, not vertical as Detweiler showed it. Today the edge of the plateau here forms a marked re-entrant which Detweiler's reconstruction treated as due to post-Roman erosion. However, the position and orientation of the newly identified Tower 5a imply there that this re-entrant, above a steep slope rather than a cliff, already existed in Hellenistic times, the city wall line diverting sharply inward where the tower was built in a way comparable with the location of towers along the 'saw-tooth' S wadi defences. Tower 5a was angled to dominate the sloping scree of the re-entrant (Fig. 6.9).

The implication is that the W end of the projecting loggia 64 and its presumed terrace roughly mark the position of a further angle in the course of the original city wall, which then ran on to the W, several metres closer to the line of the later Palace loggia 62 than the excavators thought, implying a markedly narrower terrace 63 than they envisaged. Whether

this was founded on the Hellenistic wall or, had that fallen in 160, stood on a new terrace wall simply reusing the old foundation, is unknown.

There are indications of further local deviations in the city wall line relevant to the Palace complex. On early photographs and still in 2010 two stretches of masonry were visible in the steep slope below the building (Fig. 6.14). These, on the same alignment with a gap between, lie below the junction of the main Palace block and the bathhouse. They appear on the Detweiler city map, interpreted as a short stub running S back from his city wall line. They also appear on his main Palace plan, angled towards the orientation of the bath building. Downey, who apparently inspected the walls closely at some hazard, noted that the outermost fragment is c.4m below the level of the Palace. She argued that it is not a fragment of city wall as, while ashlar, it is heavily mortared and too thin, but concludes that it could be part of a terrace structure associated with Palace or bath (Downey 1993, 184–6); the position would suggest the latter. The need to construct such a terrace would, then, imply that the Hellenistic defensive wall had indeed already fallen at this point when the Roman complex was built, and was not replaced as such. Downey suggested the N edge of terrace 63 may have been on the E–W line marked by the N terminal of the wall projecting N from the back of 61. This would suggest 63 was actually about 4m wide (Downey 1993, 186), which corresponds to the line inferred from the location of Tower 5a (above).

The orientation of Downey's putative Palace/bath terrace wall fragment—perpendicular to the general line of the cliff—indicates that there was a Z-turn at this point in the line of the city wall and/or the terrace which succeeded it, stepping S from a line across the front of the bath to another across the river facade of the Palace. Such dog-legs are seen at a number of other points on the circuit. Notably, two such double corners occur where the city wall returns along the N wadi SW of Tower 5, comprising 'Tower' 4 (Fig. 6.7). These define, in effect, an orthogonal projection several metres deep and c.30m long, probably squaring up a small natural extension of plateau edge at this point. It is suggested that the hypothetical terrace on the N side of the Palace bath was of this form, occupying another such projection in the line of the original wall circuit, a 'pseudo-tower' overlooking the W side of the scree-slope dominated by Tower 5a on the E (Fig. 6.9). NW of the bath the wall line running from Tower 5, preserved for much of its length, is fairly straight and—probably no coincidence—the N boundary line of the bath building corresponds closely to it. We might envisage, then, that the bath was laid out with respect to the old wall line, incorporating the hypothesized projection as a small secluded terrace *palaestra* with a river view.

The Palace complex ran back from the cliff edge into the interior of the city for more than 80m. The elaborated axial S door debouched onto the E–W 10th St which, running

along the S facade of the 'Dolicheneum', gave access onto the city's main, N–S thoroughfare, H St. That the door actually debouched onto the projected position of the cross-roads of 10th and I Sts does not seem hitherto to have been commented on. I St was evidently established in this quarter, at least N of 10th St: the E side of the buildings flanking the 'Dolicheneum' respect its projected line, while an earlier foundation preserved under the Palace's stable 57 is also aligned with respect to it (Fig. 6.2; *PR* 9.3, 2), as are others S of room 30 visible in the 1936 air photo. So, approximately, does the front (E) facade of the X9 temple, suggesting that I St was originally laid out from 10th St to the far N corner of the city. However, the projected lines of neither I St nor 10th St had continued beyond their junction. Upstanding foundations, wall lines visible in the ground surface, and magnetometry all suggest that, while the area E and S of the 10th St/I St junction was already built up in pre-Palace times, incorporating some substantial buildings, the street grid broke down here—or rather, was pre-empted by earlier features. Recorded foundations suggest that E of the I St junction, the course of 10th St curved distinctly to the S. This probably preserved a very early, pre-grid street line from the time the area formed the approach route to the original Citadel, when it was still a peninsula of plateau before its isolation by quarrying. In fact, 10th St actually started to curve S before it reached I St, which also curved slightly off-line to meet it at approximate right-angles. This small, previously unrecognized distortion to the SE corner of block X7 has important implications for supposed spatial and stratigraphic relations between the Palace and the 'barracks' across I St (pp. 184–185;).

The S boundary of the Palace, then, was positioned so that its axial door debouched onto the extant 10th St/I St junction. The SW corner of court 58 projected across and actually closed I St. This resembles other street blockings by military buildings, i.e. the *principia* obstructing E St, and E3 bath closing 10th and G Sts.

The arrangement of the S end of the complex suggests that access as direct as possible from the Palace to a major street and so to the centre of town was important; but also important was limiting others' access to the N in this zone. Except for the axial S door, the Palace blocked not only I St but, with its entirely unbroken E facade, any other lanes or alleys which may previously have run parallel with the river cliff.

Construction of the Palace

It was argued above that almost the entirety of the complex as seen appears to have been built as a single conception, which subsequently underwent small additions and local modifications, marking changes of function of some spaces. It was laid out, and built in mud bricks scaled in Roman feet (*PR* 9.3, 2, 5).

As we have seen, construction may have involved considerable cliff-side engineering for terracing. There are also signs of changes of plan during construction, such as movement of the

S wall of court 1 about 0.5m S at foundation level (PR 9.3, 11). The slight irregularity of the SE corner of court 58 was perhaps due to a surveying error, or to aid partial preservation of the substantial structure just outside its wall, retention of which was perhaps desired, like the structure on the W side of the *principia*.

There certainly were modifications to the building during its use, notably elimination of a number of doorways. In particular, the area around room 30 saw substantial alterations, especially as the projecting stable 57 appears to be a subsequent addition.

If the conformation of the building was very alien to Durene traditions, most of the basic materials and construction techniques employed were local. Roman fired brick was used, but sparingly, and apart from tiled floors in some rooms was largely confined to the bathhouse. Walls were generally built in standard Durene *djuss*-mortared rubble and/or mud brick, faced with gypsum plaster. There is no indication that the roofs were other than the usual flat Durene form. While especially exotic at Dura, the large peristyles were built of mortared rubble in the usual technique, while the false vaults installed in some rooms, constructed using bundles of reeds suspended from the roof by rope-work, were faced with *djuss* plaster (PR 9.3, 5).

The side walls of the clearly very large and lofty room 28 were constructed in a highly unusual variant of Durene technique also seen in the *principia*. The inner side of each wall was continued in mortared rubble probably all the way

up to roof level, but the outer sides comprised effectively wide piers built to the same width as the footing, the resulting 'niches' filled with mud brick or perhaps adobe, as the two materials were bonded by substantial but irregular timber lacing built in as the wall was raised (Fig. 6.11). Vaults and walls were painted in a style and to an extent also foreign to Dura, but it is noteworthy that there were no floor mosaics, in contrast to the C3 and M7 baths.

With regard to fittings and fixtures, the usual range of niches is seen, while bolt sockets and pivots attest substantial doors on the main portals. The excavators were convinced that many doorways in the complex, including a number opening directly to the outside, lacked doors (e.g. those opening onto court 43: PR 9.3, 16). This is generally implausible, given the extremes of temperature and weather at Dura today, unlikely to have been gentler in antiquity—not least strong winds. The 'wooden trim' mentioned around some doorways likely supported light doors (PR 9.3, 7), while lack of *apparent* provision for doors in others is hardly conclusive, given the state of preservation of much of the complex at excavation.

We now consider the Palace layout in more detail.

The River-Frontage Range

The river-frontage range (Figs 6.2 and 6.12) was slightly elevated, constructed on a low terrace standing c.0.7m above the general floor level of the Palace, corridors 10 and

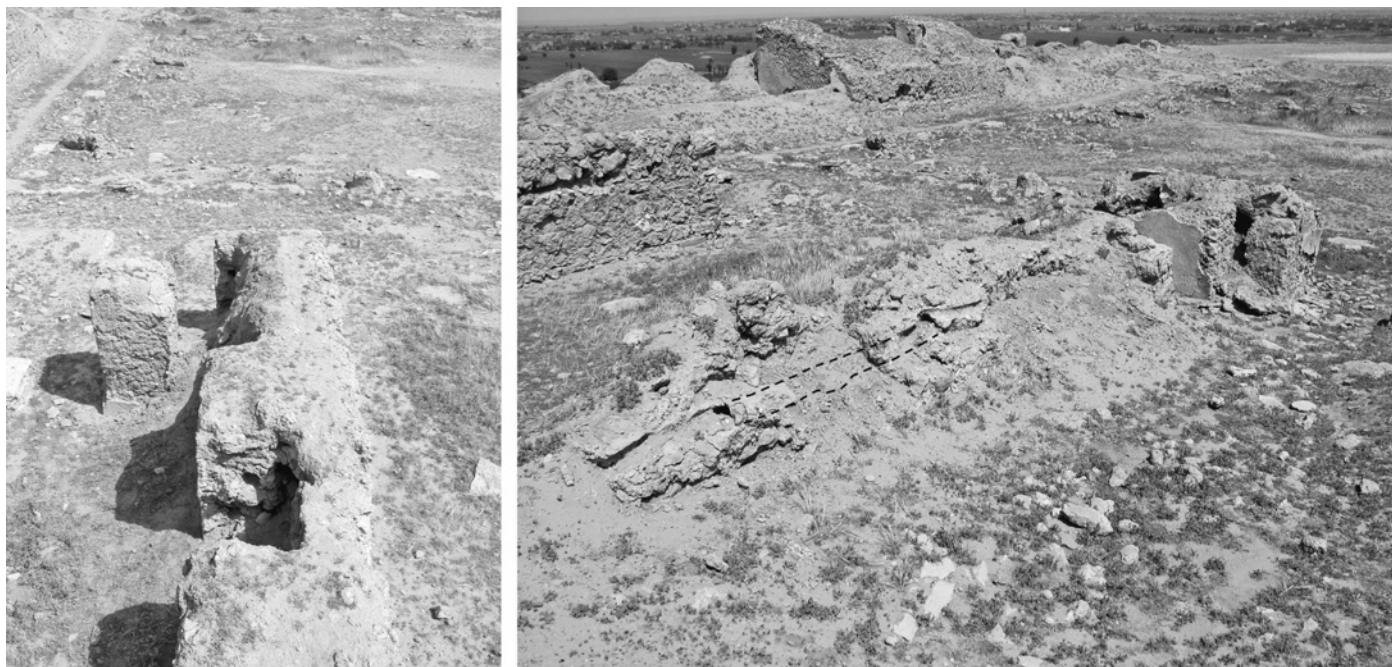


Fig. 6.11. The unusual construction technique used in room 28 of the Roman Palace: L, its N wall, showing the masonry construction with cavities originally filled with mud brick or adobe to the outside; R, the exterior of its S wall in room 29, showing mortar casts of timber lacing which tied the composite structure together.



Fig. 6.12. The Roman Palace riverside range from the W, with the masonry superstructure of the apsidal room 2 prominent at the centre, and one of the remaining piers of loggia 62 seen on the very edge of the cliff.

14 gently sloping between the levels (*PR* 9.3, 5, 19). It comprised three blocks of rooms all communicating on their N sides via a long, valley-facing corridor line (62–60–64). This was defined on its N side by a series of rectangular piers, bases of three surviving at excavation (only one remained in 2010). These indicate that 62–4 comprised a covered loggia offering sheltered views of the river. As might be expected, the piers were positioned so that doors facing onto the loggia had unobstructed views. Although no arch fragments were recovered, the excavators plausibly reconstructed the loggia as an arcade (*PR* 9.3, 62), with an especially wide opening in front of the axial room 2. The lack of signs of walling between the piers, and survival of a fragment of flooring N of their line, indicate that in front of the arcade there was originally a terrace (63) which was argued above to have been c.4m wide.

The central suite of the range comprised almost the entire block of rooms between corridors 10 and 14 linking the river frontage with court 1. The suite was arranged roughly symmetrically around the massively built apsidal room 2, which on each side communicated with a narrow room (7, 8), in turn connecting to a further, wider room (6, 9). These all possessed false vaults, and polychrome wall and ceiling décor (*PR* 9.3, 21). All five also originally had direct doors onto loggia 62, but subsequently low walls were built across the doors into 6 and 9, reducing them to windows (*PR* 9.3, 20). The W pair of rooms also connected to a rear room (5), which originally had a second door directly onto corridor 10, later blocked. This, the core suite of the building, had controlled but still double lines of approach (10 and 14 to 62). The remaining, SE corner of this core block comprised a two-room suite, 3–4, accessed only from corridor 14.

On the W side of the central suite and corridor 10 was another two-room suite with false vaults (12–13) opening off loggia 62. The W end of the loggia gave into the small enclosed room 61.

E of the central suite and corridor 14 lay another more substantial suite, 17–20, the last with the tiny apsidal 22 and, running from the E end of loggia 62, the small 60, giving access to the extended cliff-edge space 64 and apse 21. Rooms 17–20 all had false barrel vaults, at least 18–20 and apse 22 (Fig. 6.6, c) being elaborately painted (*PR* 9.3, 22, 24). The publication proposed that 64 had been either the nave of a (distinctly narrow) ‘triconch hall’, or that apse 21 may have lain at the centre point of a longer space (*PR* 9.3, 23–4). Work by Downey (1993), confirmed the latter interpretation. Space 64 comprised an extension of the line of 62, most likely also a roofed loggia with piers to the front (now all lost to the river), and blank walls at its E end and along its S back, unbroken except for apse 21. Space 64 was, then, considerably longer than the original excavators indicated in their published plan (*PR* 9.3, fig. 7), its apparent end just E of 21 shown by Downey to be break in a continuing foundation. This break was probably caused by collapse of the wall into a drain (p. 163). Apse 21, at the midpoint of 64, echoing the position of room 2 off loggia 62, offered views of the river. We can only guess whether 64 was also fronted with a cliff-edge terrace like 63.

Like other parts of the complex, this second substantial riverside suite underwent significant modifications in use. Notably, blocking of 17’s door onto loggia 62, to make a shelved niche with a bin or chest at floor level (*PR* 9.3, 22), created a suite accessible only through lobby 60. The result was an especially isolated block of rooms, 17–20 and 22, commanding its own private loggia (64) and apse (21). Along with the rooms grouped around 2 and 28, this constituted one of three major suites in the complex. It was also the most secluded and secure of all. However, the E riverside suite lacked any major central room equivalent to 2 or 28, and likely comprised entirely private spaces like bedrooms, with apse 21 offering a setting for especially secluded conversations.

Inner Court, 1

While the river frontage range faced roughly N, turning its back on the rest of the building, the major suite on court 1 (Fig. 6.2) was almost literally oriented. This peristyle, its fallen columns reconstructed as 3.6m tall (*PR* 9.3, 12), was dominated by the five rooms laid out on its W side. They were articulated around room 28, which lay on the slightly longer E–W axis of the squarish court, perpendicular to the main Palace axis.

Room 28 was one of the largest single-span rooms in the complex, reflected in its relatively massive N and S walls with their complex construction (above). The room had a richly painted false vault (*PR* 9.3, 14). Like 2 it forms the centre of a roughly symmetrical arrangement, a door on each side

leading to a smaller room (29, 26), each with its own access to court 1, and another door to a rear, inner room (29', 27).

It is noteworthy that few other rooms per se led directly off court 1. There was only one subsidiary two-room suite (24-25), perhaps significantly abutting the main suite on its N side. Features, finds, and recovered texts suggest 24, 25, and the connecting corridor/store 11 (Fig. 6.6, d), constituted another service area of some kind (PR 9.3, 15-16), with storage and perhaps kitchen facilities. Rooms 31 and 32 may have formed another two-room suite dependent on 1, although at least later they provided another entry route to the Palace via room 30, with 32 being a small stable, identified by a manger structure (PR 9.3, 14). Otherwise, there was just the single room 37 in the remote SE corner, the entrance to which lay next to the S door from service court 43, allowing for surveillance of movement. Room 37 was also found containing stacked amphorae, consistent with a service function (PR 9.3, 12).

Apart from the W suite and the unobtrusive door to 37, all other doorways onto court 1 were access routes through the building *ab initio* (from 35, and into 10 and 14) or at least subsequently (31: below). The N and E colonnades possessed virtually unbroken rear walls, making the court relatively secluded for those using the main suite around 28. Although there was a slightly wider intercolumniation in front of 28, implying that, as might be expected, the view from the room across the peristyle was important, there is no indication that the court was more than just a flat open expanse, except for a circular *djuss*-plaster base just inside it, axial to room 28 (Fig. 6.13). This likely supported a statue to provide some additional visual interest to a vista otherwise grand but sterile: there is no evidence of any garden features in the court which, like 58, possessed a drain on its W side to take run-off from winter downpours.



Fig. 6.13. Sculpture plinth axial to room 28.

Service Court 43 and Dependencies

The E side of court 1 comprised a wall separating it from smaller rectangular courtyard 43. A doorway connected the two at the S end. The publication argues for a middle door in the wall on the axial line of court 1, but the entire stretch of wall here was missing on excavation. This supposed axial door was inferred primarily on the grounds of the 'paving of flagstones' encountered on the central stretch of the E colonnade of court 1, interpreted as a measure reflecting heavy foot traffic to and from the service court via the hypothetical central door (PR 9.3, 16). This 'flagging' is shown on the plan with straight edges, although the area is filled with what look to represent patches of rubble. A much more likely interpretation is that the 'stone paving' *was* the missing stretch of wall, which had fallen in a single piece across the court 1 colonnade. There never was an axial door to court 1. In laying out and then using the complex, emphasis was on control of movement: court 43 had two other known entrances providing access to court 1 and the riverside range, both routes under direct surveillance from adjacent rooms. Definitely, when the builders of the court went to considerable trouble to create controlled vistas within the building, including providing room 28 with a wide intercolumniation to view the inferred statue in the court, they are hardly likely to have ruined the effect by placing a busy servants' entrance on the same eye-line.

In addition to the S door to court 1, 43 also communicated with the riverside suites via vestibule 23' and room 15. Originally there was also access from outer court 58 to the S, through 39 and 40, but door 39-43 was at some stage blocked. As mentioned, both remaining entrances to 43 were potentially under close surveillance. The S door to court 1 was under the eye of whoever was stationed in rooms 38 and 37, while the N route passed through room 15 before opening onto corridor 14 en route to the riverside suites. Room 15 itself formed a small suite with the relatively large inner room 16: that access N was only possible by actually passing through this suite is again consistent with strict supervision of movement.

A number of modest sized individual rooms opened off court 43, on its S side (38) and the E (41, 45-7, and originally 48). Vestibule 23' also gave entry to a small, apparently unheated, bath or ablution block (49, later incorporating 48 too) with a latrine (23). This utilized the run-off drain from court 1.

On excavation a substantial gap was found in the outer wall of the building at room 49, behind room 19. This gap was not a door to the outside, but was caused by collapse of the outer wall which at just this point ran over the course of the drain leading from court 1 and under the ablution facilities. Court 43, then, never had direct street access. Even the original route from court 58 via 39-40 was later closed off. To reach court 43 from outside the complex, all people and goods had to pass through room 35. Surveillance and control

again seem to have been increasingly prioritized over practical convenience.

The sequestering of court 43 from the grander parts of the house, its modest construction and multiple individual rooms, strict control of access into it, and out of it towards the riverside range, all suggest that this was the main service area of the complex where most slaves and servants were accommodated with their own ablution facilities. Their movements will have been controlled by seniors in suite 15–16, and rooms 38 and/or 37. However, it was not the only service area: as we saw, rooms 11, 24, and 25 seem also to have had service functions, while externally a service area existed around the bath furnace(s) (p. 173).

Rooms 30–2 and 57

The SW junction of the ranges around court 1 comprised the largest roofed space in the complex, room 30. This had four freestanding roof piers, making it structurally similar to the ‘Temple of the Roman Archers’ in A1 and the ‘Tychaeum’ near the Palmyrene Gate. Whether it was open to the sky in the centre, atrium-like, remains uncertain. Its main entrance, on its slightly longer N–S axis, was from the outside of the building, from the open area on the W side of court 58, contiguous with the line of I St. I suggest that, as originally built, this was its only entrance. The lateral doorways, into stable 57 and 31 leading to court 1 and smaller stable 32, both lack the proper stone thresholds seen at the outer doors of 30 and 31, best explained as later doorways broken through previously solid walls.

This suggests substantial modifications to room 30 and its vicinity during the life of the Palace. A door was broken through and a substantial stable (57) added on the W side of 30. Perhaps simultaneously a matching door was cut through its E wall into 31, with 32 also converted to a stable. These four rooms now constituted a substantial stable block, with its own independent route from the interior of the base area around I St directly into court 1. In 2010 an additional feature not recorded by the excavators was identified in front of the main S door to room 30. These seem to be foundations for a covered porch, perhaps to provide shade for waiting horses.

But what was the original conformation and purpose of room 30, if originally its only access was from outside the Palace? Why such a major space should not have been directly accessible from the main building behind it is unclear, but it provided an impressive covered gathering place contiguous with, while separate from, the main complex.

Outer Court 58 and Exedra 59

To the S of court 1 lies another, larger, almost perfectly square peristyle, 58, its columns reconstructed as c.4m tall (Fig. 6.3; *PR* 9.3, 8). It is not quite truly orthogonal; the S part

of the E wall is noticeably off-line, and the E stylobate slightly deviates accordingly.

The outer peristyle was laid out from a somewhat longer corridor line running the length of the S side of the court 1/court 43 block, from its SE corner to just short of the door of room 30, which was left outside it. At the centre of this N colonnade lay the door to room 35, constituting the main entrance to court 1 from 58. Otherwise the N wall of 58 appeared blank when seen from the S, with the exception of the door leading to 36, just E of 35. There was, in fact, one other door leading off the N colonnade, giving access to 40 and thence 39 (and originally through to court 43) but, tucked into the extended ‘*ala*’ at the far E end, it was out of sight from most of the court.

The other three sides of peristyle 58 simply comprised colonnades with blank rear walls, except at the centre point of each. Directly opposite the door to 35 and court 1 was the main street entrance to the Palace, a quite grand, column-flanked doorway onto 10th St. While the stylobate for the W colonnade and some of the broken columns were still visible in 2010, most of the W wall of 58 had vanished. However, slabs constituting the threshold of a W door, apparently of similar form to the axial S door, exist at its midpoint. This would have given onto the line of former I St, and the access to room 30 to its N.

At the midpoint of the E colonnade lies *exedra* 59 which, with 2 and 28, is one of the largest single-span rooms in the Palace. Its open frontage was emphasized in the line of the fronting colonnade by a wider intercolumniation framed by orthogonal piers replacing columns (*PR* 9.3, 8), probably for an arched facade to a raised roofline at this point. The room was lofty, with an elaborate false vault. It appears to be a major reception space, perhaps designed more to be seen from, than to see, the peristyle court.

The Palace Bath

The Palace bath (Figs 6.14, 6.15, and 6.16) was partly excavated in 1931–2, but published only as a brief, sketchy, and unillustrated note (*PR* 5, 289). The rooms connecting the previous excavation with the Palace were dug in 1935–6 (rooms 42 and 44, and parts of 52 and 55), and only these were later reported on (*PR* 9.3, 25–6), perhaps because the editors had no records for the earlier excavation. Although a substantial part remains unexcavated, it is clear that the Palace bath articulates around the long hall 55, which had possessed a brick barrel vault (*PR* 9.3, 26) with windows in its apsidal W end (Fig. 6.15, a). Hall 55 had rooms built on both its long sides. On the river side an apsidal plunge pool (68: Fig. 6.15, b) was flanked by two rectangular spaces (67 and 69). On the plateau side were three doors. That closest to the Palace opened into 52, which gave access to latrine 44 (Fig. 6.15, d), and to the long room 42 which connected with the main complex via room 11 (Fig. 6.15, e). Waste from latrine

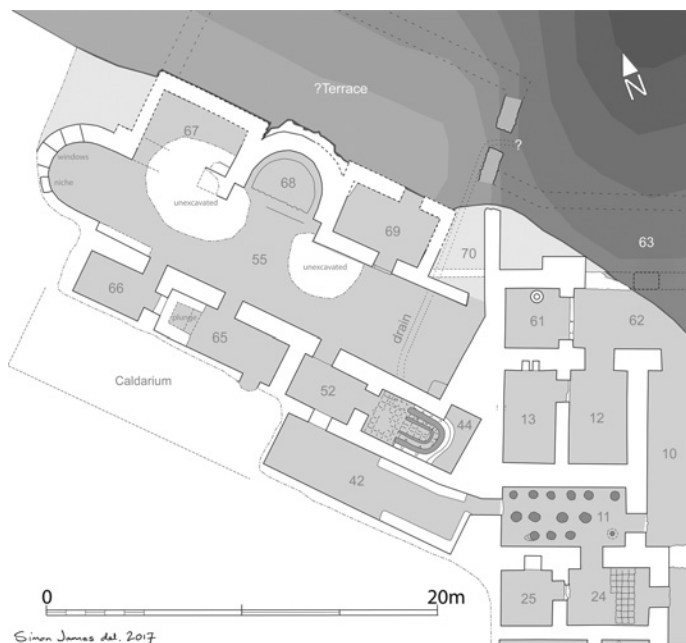


Fig. 6.14. Detail plan of the Roman Palace bath.

44 was carried to the cliff by a drain under the E end of 55, its line revealed by floor collapse, possibly leading out and down to exit through the gap in the 'terrace wall' below the bath. Towards the apse of 55 a door gave into room 66, which originally communicated with 65 until the door was blocked, leaving it a blind space. Room 55's middle door led into 65, the N end of which, after the door blocking, was turned into a brick-built plunge bath (Fig. 6.15, c). At the S end of 65, cleaning in 2010 revealed an undocumented doorway into the still-unexcavated portion of the bath building.

With regard to functional spaces, 69 was probably a changing-room, 55 the *frigidarium*, with apsidal pool 68 a cold plunge. In 2010 the wall of 68 still retained the aperture for a feed pipe leading through from 67, an orthogonal space with plaster floor. It is hard to say whether the fragmentary remains of 67, eroded on one side by proximity to the cliff edge and obscured on the other by a mound of unexcavated material, represent another plunge or just a reservoir for pool 68 and other hydraulic features like the latrine. No specific evidence for a water supply to the bath has been identified, but a piped main from the water raising facilities inferred around Tower 5, matching those supplying the F3 and M7 baths, is highly likely.

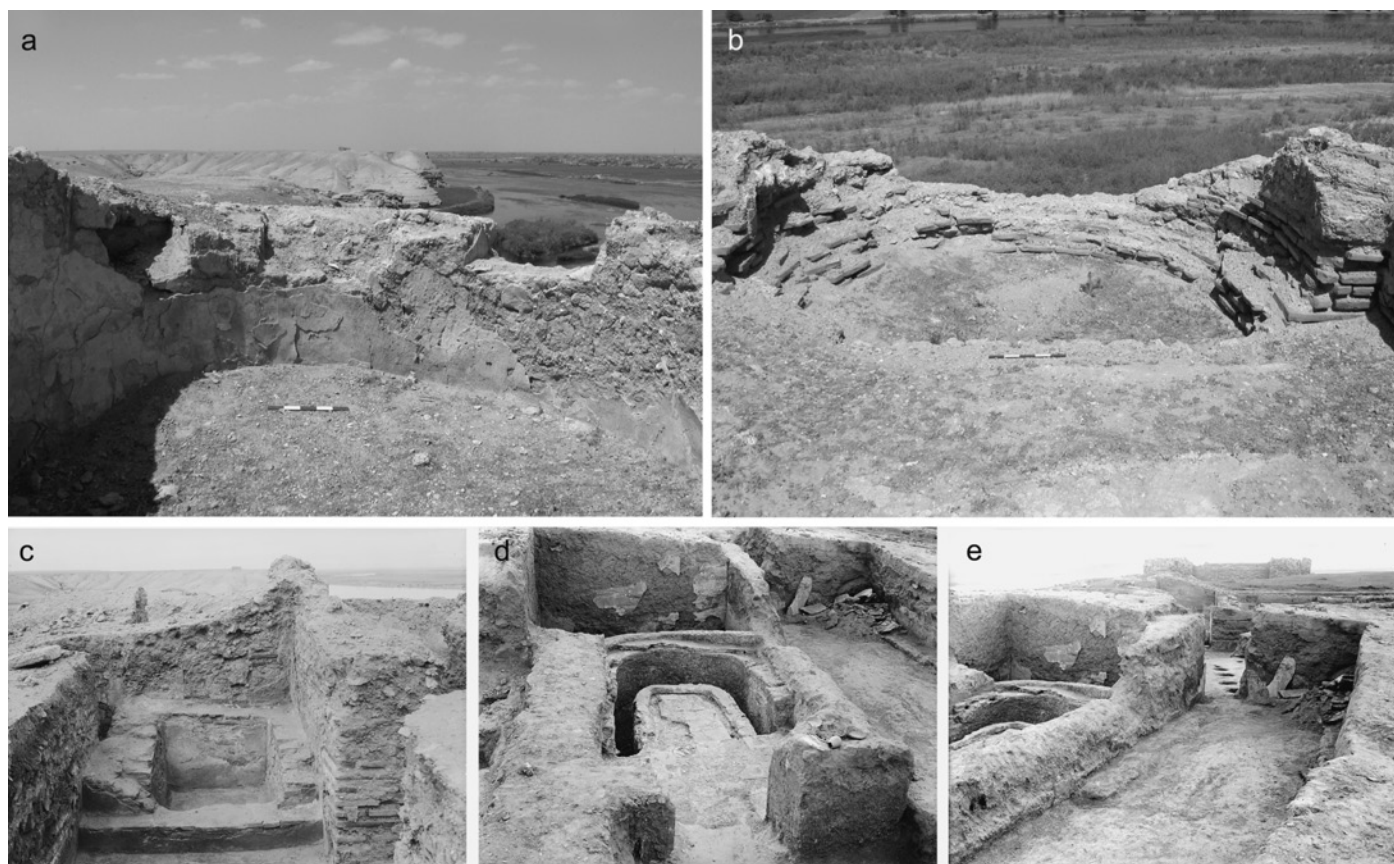


Fig. 6.15. The Roman Palace bath: a. the terminal apse of frigidarium 55, and b. apsidal pool 68, in 2010; c. plunge in 65, d. latrine 44, and e. corridor 42 soon after excavation.



Fig. 6.16. The state of the Palace baths in 2008, with latrine 44 in the foreground and the long apsidal room 55 beyond.

The heated suite clearly lay on the plateau side of 55 where there was space for furnace(s), fuel store, and ash dumps. It was accessed via 65, probably the *tepidarium* for the still-buried *caldarium*. It is not clear whether 65 or 66 were directly heated. Nothing is known of the layout of the still-covered area incorporating the *caldarium*, magnetometry showing only the strong anomaly expected from hypocausts.

How did the bath articulate with the Palace? The obvious direct route, through 11, 42, and 52, is unlikely to be the whole or even the main story, and indeed the excavators stated rather enigmatically that ‘the main entrance to the bath from the Palace was not uncovered’ (PR 9.3, 25). It is hard to imagine important officials walking through a store-room (11), picking their way between the necks of vessels set in the floor, to reach the bath. It is suggested that this was actually a secondary access route, with room 42 being a waiting area for servants, and latrine 44 also being primarily for the lower ranks (the great relying on chamber pots carried by body servants). Route 11–42 may also have allowed middle ranking residents to use the baths when the senior residents did not need them.

It is proposed that to reach the baths important residents used another, northerly access route, direct from the river-side residential suites via loggia 62 and terrace 63, to the hypothetical bath palaestra/terrace (above), entering the bath building through 69. Notably, doorway 69–55 possessed a door bolted from the former, allowing the N access route to be secured when the bath was not in use by the principal occupants. (The area labelled 70 had perhaps once possessed another door, on discovery apparently closed off by a Palace-aligned wall, now lost.) Any other access to the bath can effectively be ruled out. There is no trace of any other external door in the excavated portion, and direct access to the unexcavated portion, almost certainly the *caldarium*, is implausible. Except for the mouth of the furnace

stoked from outside the building, the outer wall of the bath will have been as blank and secure as the unbroken E perimeter of the Palace.

It also underwent modifications in use, e.g. blocking of door 65–66 to create a brick-built plunge bath, while the latrine structure in 44 was an insertion into what had been a larger space (PR 9.3, 26).

An Additional Courtyard?

Satellite imagery (Pl. VII) showed an undocumented excavation revealing a stretch of substantial wall, projecting the line of the S boundary wall of the main Roman Palace block towards the NW, beyond the line of the bath house. This excavation does not appear on Z5, the latest dated archive air photo taken 19 March 1936 (Fig. 1.12), indicating it was dug in the tenth season. Its position is significant; the exposed walling blocks the inferred line of 12th St close to the junction with the line of I St, in much the same way that the corner of court 58 blocks I St near the 10th St junction. This wall fragment seems to imply the hitherto unsuspected existence of further structures and/or another large courtyard in this area, on the Roman Palace alignment. Magnetometry produced no clear patterns, but on the line between the newly identified wall and stable 57 there is another low mound, not formally excavated, probably indicating a substantial building (Fig. 6.1). The zone between this line and the bath was likely in part the service yard for the latter. A further wall defining this apparent enclosure, running from 12th St to the cliff, is hinted at in the magnetometry.

Phasing and Dating

With regard to the date of construction of the Palace, Gilliam’s arguments in the *Preliminary Report* were tenuous

at best, relying on dubious readings of dipinti. He dated the building to post-211, on the grounds that it was later than the 'Dolicheneum', which he says was 'built in or by A.D. 211' (PR 9.3, 94). In fact, the Palace has no direct stratigraphic relation with the 'Dolicheneum', which cannot provide a *terminus post quem*, and anyway is now suggested to be an earlier foundation (below). For a *terminus ante quem*, Gilliam pointed to a graffito possibly referring to Elagabalus (PR 9.3, no. 944, 94–6). If correctly read, this means the building existed by 222.

As explored below, Gilliam further argued the Palace had been built to accommodate officers holding the post of *dux ripae*, supposedly a new regional military command he proposed was created about 220 (PR 9.3, 95–6), an idea now discredited. If the 'Elagabalus' graffito is correctly read and proves that the building was standing by 222, the most economical interpretation based on available evidence is that its construction was simply another part of the great pulse of construction in the military base area, several major elements of which are firmly dated to the 210s. The building makes good sense in this context, sharing as it does not only peculiar features of architecture with other buildings in the base, notably the composite rubble/timber/mud brick construction of major load-bearing walls otherwise only seen in the *principia*. Gelin concluded, on the basis of its characteristic mud bricks being identical with those used in the *principia*, that the Palace was also built c.211 (Gelin 2000, 442–8). Features of its setting within the town (deliberate blocking of roads, creation of de facto barriers to movement within the urban space) likewise fit with its being a part of the 210s base consolidation. Unless and until significant renewed excavation produces further evidence, the most probable date of construction for the Palace is the 210s, the working hypothesis adopted here.

In recent times, the views from this spot on the river cliff occupied by the Palace have attracted visitors. It is likely that the food remains found on the floor of room 2—peach stones, egg shells, bird animal, and fish bones (PR 9.3, 20)—represented post-abandonment picnicking or bivouacking in the abandoned shell of the building. A Latin graffito 'of uncertain character' recorded in the adjacent room 8 (PR 9.3, 21 and 42–3, no. 952) included the titles 'ducinarias and centinarias'. It was suggested that the two ranks represent not third-century dignitaries but, as the office of *dux ripae* supposedly prefigured late Roman military practice at Dura, the same here was true of the more junior fourth-century military ranks *centenarius* and *ducenarius* (PR 9.3, 43). However, there is a simpler explanation: the graffito is about late Roman soldiers. Perhaps it was inscribed by men of Julian's army touring the ruins in 363 (p. 55).

Purpose and Usage: Internal Evidence

As we have seen, the Palace comprised a grand residential complex, with three spatially and functionally differentiated

zones (riverside range, court 1 range, and court 58), flanked by two important service areas (service court 43 and 11/24/25/riverside bath). It probably had a further substantial service yard beside it.

The main block provided several suites for accommodation and private dining, with substantial baths and extensive service facilities suitable for a large household. Residential accommodation was arranged in relation to two elegant circulation spaces: the riverside loggias/terrace(s), and peristyle court 1. Given the climatic cycle at Dura, these two spaces, focused on rooms 2 and 28 respectively, may well have been intended to offer alternative seasonal facilities to the primary occupants of the building: room 2 and the loggia offering shade and catching the river breeze during the hot summer months, with 28 perhaps offering more shelter from the winds, and catching the sun in the sometimes intense cold of winter. On this view of the building as a residence quite suitable, at least in terms of space and spaces, even for senatorial-class residents, the outer court 58 could have served as an enclosed recreational facility, its long colonnade providing for private walking and talking, especially for winter/bad weather exercise when the river frontage was too cold or windy. Room 59 likely offered a grand W-facing alternative for reception and dining to the E-facing 28, and N-facing 2.

The E riverside suite (17–20, 60, 64, 21) appears different in kind from the foci provided by suites 2–9, 26–29, or court 58, lacking any grand axial room; rather, it simply had the small and intimate apse 21 overlooking the river. Loggia 64 and apse 21 offered the most private part of the entire complex. Subsequent modifications to door access heightened still further the security and privacy of this corner of the Palace. Which raises the issue, not only of differentiation of space, but hierarchy of space, and control of access and movement into and through it.

It is possible that the Roman Palace was, most of the time, effectively an isolated residential compound serving the needs of the mighty, who progressed through the city to the S street entrance or to room 30 with its stables, and then closed the doors behind them, turning their backs on city and garrison to enjoy the amenities within in quiet seclusion. Gilliam noted the 'paradox' that the Palace is separated from, and faces away from, the town and indeed the interior of the military base (PR 9.3, 70). Certainly, the blank E perimeter wall of the complex excluded everyone and everything to the S of the building.

However, as a grand and prestigious complex built by the imperial power in a large military base set within a regionally important city, the Palace will almost certainly have had some official military, political, and/or public functions, besides residential purposes. With regard to internal layout, since the republic the residences of Roman grandees had been designed with a hierarchy of space and degrees of accessibility, from the street doors and atrium where senators greeted

their clients, to more private facilities for entertaining high-status visitors deeper within the building, to purely private domestic spaces. The basic conception and details of the original Dura Palace layout, and still more the various subsequent modifications made, all point towards such a hierarchy of space within the complex, and over time progressive tightening of control over access and movement through it.

But what, then, was the public face of the Palace complex? One of the legacies of the ‘*dux* fixation’ in the original publication, which sees this as a military commander’s residence-cum-HQ, was to focus on the garrison aspect, envisaging a ‘civil’ riverside range and inner peristyle, and an outer peristyle seen primarily as a military space (PR 9.3, 93). However, while the building had two entrances facing into the military zone, its outer court also communicated with the main streets of the city. Internally, the complex is best seen, not as having ‘military’ and ‘civil’ areas, but as comprising four successive zones running from semi-public (court 58) to increasingly select (court 1), then the private river frontage range (loggia 62) and finally the innermost sanctum of the deeply isolated E riverside suite (beyond lobby 60).

The arrangements seen in the building went beyond mere privacy, to increasingly tight security measures—a concern seen elsewhere across the base zone, but especially noteworthy within the Palace. In general, the plan possesses the kind of surveillance and control arrangements expected for large residences, e.g. around the gatehouse to the inner court, room 35. This, with the ancillary rooms 34 and 33, probably accommodated door-keepers and/or guards, while 35 itself offered benches for visitors awaiting admittance to court 1. The adjacent room 36, exceptionally in this range opening to the outside of the court 1 complex, and provided with heating (and cooking?) facilities, was seen by the excavators as a guardroom, and perhaps provided waiting facilities for bodyguards, attendants and servants whose employers were being entertained within. Likewise, it is not surprising that access from service court 43 towards the innermost, riverside range required passage through the front room of suite 15–16, which likely accommodated senior household staff. With regard to security, the absence of any direct street access to service court 43 is noteworthy (no ‘kitchen door’). Originally, the service court could communicate with the town through rooms 39 and 40, via court 58 and the doubtless-guarded main S entrance onto 10th St. This route permitted goods and service staff to move to and from court 43 without having to pass through court 1, allowing them to be kept largely out of the sight of the privileged. However, subsequent blocking of door 39–43 meant that henceforth everything and everyone moving to and from court 43 had now to pass through door 35, and along the S colonnade of court 1. This suggests security was increasingly prioritized over social niceties. Downey sees security as the possible reason for reduction of doors to windows in rooms 6 and 9, and

notes the virtual isolation of the E riverside suite (Downey 1993, 192). Similarly, measures were taken to make this last, innermost area of the complex even more private and secure, by reducing access to a single entrance, through reduction of the door of 17 to a window. In the Palace, then, we see the Roman preoccupation with surveillance and control discernible across the Dura base area repeated and heightened. But who actually used the complex?

Who Used the Palace? The Disappearing ‘Dux Ripae’

While the scale, setting, and layout of the Palace made it very imposing, especially in the context of a modest city like Dura, its décor gave it a somewhat utilitarian or perhaps institutional air. Its architecture appears no more ornamented than the *principia* and, while the large number of vaulted and polychrome painted rooms make it stand out at Dura, the quality and detail of the wall painting do not look very impressive by the standards of contemporary elite domestic architecture elsewhere in the Roman empire. Notably, there are no floor mosaics.

The limitations of the décor, then, alongside the location and articulation of the building within the military quarter, provide supporting reasons for accepting the view of the excavators that this was not the personal, private mansion of some particular grandee, but was an official residential complex, constructed for the use of imperial officers who were not going to live there long enough to invest in fixtures like mosaics. Concern for security is also consistent with use by the households of senior imperial officials.

However, in a paper (Gilliam, J. F. 1941), and in the published report (PR 9.3, 93–6), Gilliam then takes further steps which are quite unwarranted, not least in the light of his own discussion of historical and archaeological parallels. He assumed that the building was constructed *ab initio* as the residence-cum-HQ for holders of a single, named office. Based on dipinti in room 7 of the Palace, he concluded that its title was *dux ripae* (PR 9.3, 30–5, nos. 945–7; 93–6).

Gilliam initially argued that the office of *dux ripae* was created by 245 as a commander of the region below the Khabur in response to the growing Sasanian threat (Gilliam, J. F. 1941, 169–74). However, as he had convinced himself that the Palace had been built as the HQ and residence of this supposed commander, in the *Preliminary Report* he was obliged to modify his argument, since an important dipinto in court 1 seemed to date to the reign of Elagabalus, pushing the building of the Palace back to before the rise of Sasanian power in the later 220s. This obliged Gilliam to argue, implausibly, that his *dux ripae* command must also have existed that early, as Rome had already switched onto the defensive in the region before the Sasanians (PR 9.3, 95–6).

Gilliam’s reconstruction has come under devastating attack (Edwell 2008, 129–35). Edwell observes that ‘ultimately the

identification of the office of *Dux Ripae*, and the large building... described... as his Palace, is based on one *dipinto*, of which the *dux* was not even the subject, which was an actor, Elpidophorus (Edwell 2008, 130). There are a number of other references in Dura's inscriptions and papyri to men with the title *dux* which Gilliam used to build his case that the *dux ripae* was a special regional commander, and that the Palace was built for him, in what Edwell convincingly argued amounted to a house of cards reliant on circular argument. Since the parallels cited by Gilliam himself actually show that the title of *dux* was already in use with a variety of meanings by the third century, e.g. as an honorific for governors of Africa, more often for commanders of temporary campaign contingents, and also for officers commanding legions (Gilliam, J. F. 1941, 162–4), it is highly dubious that all the *duces* attested at Dura represent a single office at all, let alone the special regional commander Gilliam envisaged (Edwell 2008, 131).

If not for a regional military commander, why was the residence built? It is certainly implausibly large to have accommodated a unit commander: the J1-A house is an appropriate size and in the right location. And had, for example, the household of the equestrian tribune of *cohors XX* used it on a regular basis, we might expect to have seen some traces in the graffiti. The Palace looks intended for more exalted purposes which, like the *dux ripae* interpretation, envisage a larger context. In fact, there are several other plausible reasons for building such a large residence at Dura.

Dura was the administrative centre not just for the Roman military in the Middle Euphrates valley but also for civil government and, doubtless, the tax system. It may therefore be expected that the provincial governor made periodic visits to the city, to inspect the soldiers as provincial army commander, and to conduct military and civil trials. It is also to be expected that the provincial procurator visited, and perhaps lesser imperial procurators such as the *praepositus praetenturae* who, it has been argued, oversaw administration of a *praetentura* comprising the Middle Euphrates and Khabur valleys from at least 216 onwards (Gnoli 2007, 51–5). Although such grandees could have forced themselves on the hospitality of Dura's great households, the needs of senatorial and equestrian officials might have provided reason enough to construct a major residence at Dura. However, the immediate impetus may have been other perceived needs for imposing, even literally palatial facilities here.

The Dura base was apparently formalized, and many of its central structures built, as a programme connected with Caracalla's expansionist plans against Parthia. These included diplomatic overtures seeking dynastic marriage, as well as military preparations and threats (Cassius Dio 79.1; Herodian 4.10–11). If the complex was indeed part of the Caracallan programme, then it may have been built in part to provide accommodation suitable for officials of more than provincial significance, including embassies in transit. One of the Dura

papyri is a circular letter alerting military commanders (including Dura's) to the imminent passage of a Parthian ambassador up the Euphrates into the empire, instructing them to provide the 'customary hospitality' (*P. Dura* 60B of AD 208: *FR* 5.1, 223), a phrase suggesting diplomatic entourages passed through reasonably frequently. In earlier times, the Citadel Palace could have housed high-ranking Arsacid visitors, but this was long since ruined.

Indeed, the ruins of the Citadel Palace may also have helped prompt creation of a Roman imperial equivalent within the base area. As we have seen (pp. 50–51), in Arsacid Dura, the Citadel Palace and *Strategeion* facing each other across the lower city in the inner wadi perhaps symbolically represented the axis of civic and royal authority in the city, literally over the heads of the townsfolk. The new Roman Palace, on its own spur of peninsula in the N of the town, may in part have consciously referenced and reconfigured this historic topography of power. Now, while the old Arsacid palace was a heap of ruins in a Citadel now occupied by Roman soldiers (who may literally have hung their washing on it), the distant authority of a new imperial *hegemon* was represented on a new bipolar axis: Dura's old centre of civic power was, from the 210s, connected to the Roman Palace by the great axis of H St. What was a convenient direct route for routine communication between civic and military officials in ordinary times was also ideal for ceremonial purposes on special occasions, when governors, or other dignitaries visited and took up residence in the Roman Palace. We may imagine civic delegations processing from the *bouleuterion* along the major avenue to deliver panegyrics and make imperial acclamations in the outer court of the Palace, and Roman official visits going the other way, to the principal civic sanctuaries.

With the coming of Roman rule and a major garrison, real civic : imperial bipolarity in the city re-established, probably more deeply than ever. Even if it was only directly visible from the river, replacing the Arsacid Palace with a Roman successor inside the military base, now symbolically presenting the emperor rather than the king of kings was, perhaps, a conscious message of Roman triumphalism intended for Arsacid consumption.

Further still, the great cliff-top residence may have been intended to serve on occasion as a literal imperial palace, for *Augusti* campaigning on the Euphrates—and was likely used as such on a few occasions (p. 303).

In summary, it is likely that from the outset the Roman Palace was designed to serve a range of imperial functions: residential, social and ceremonial, public and private, local, regional, and 'global', civil and military, political and diplomatic. Outer court 58 with grand *exedra* 59 was certainly suited to substantial military assemblies, but could also have accommodated public trials, and imperial acclamations by assembled civic dignitaries. And, according to season, weather conditions, and the prestige of guests, court 1 and room

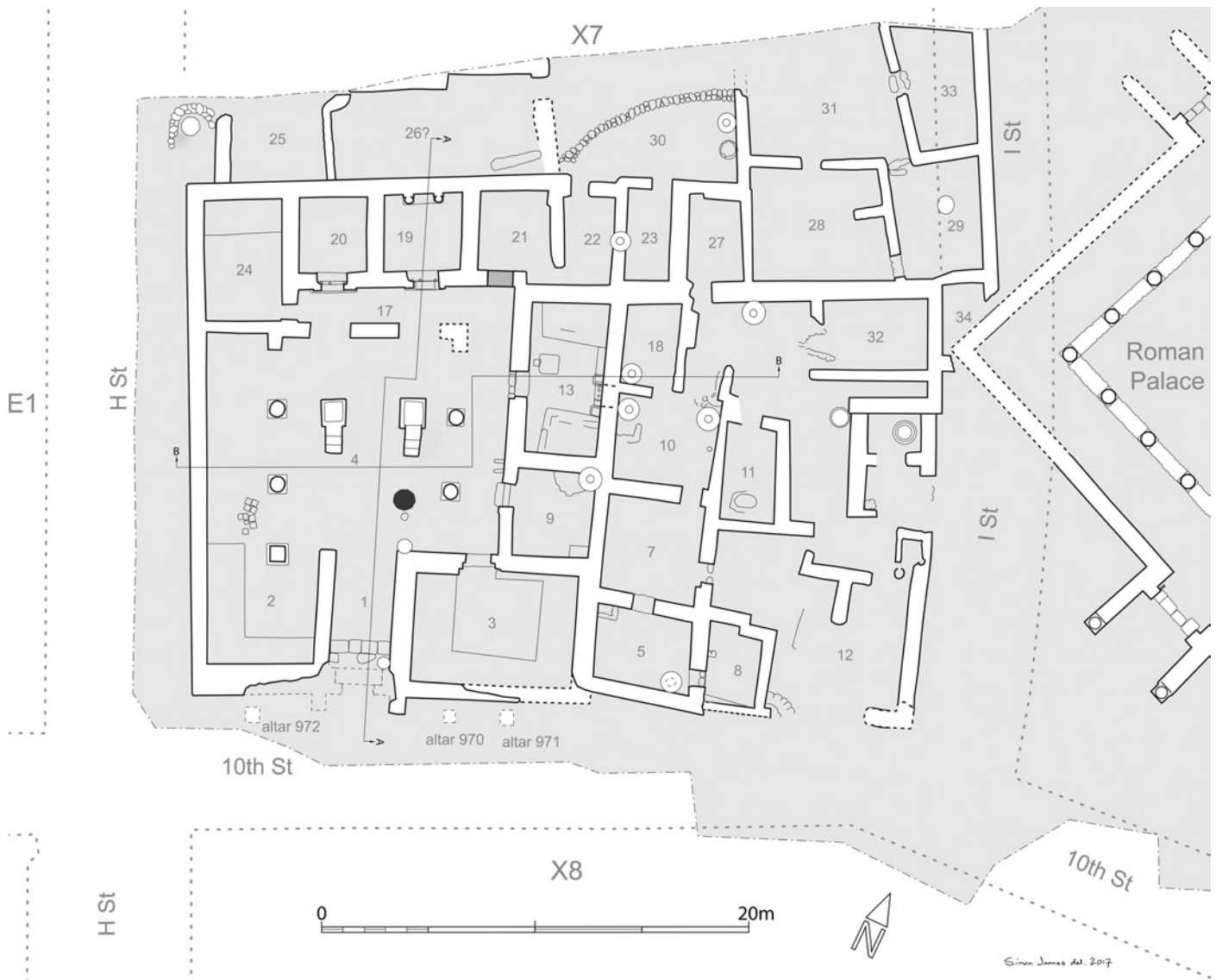


Fig. 6.17. Plan of X7 showing the temple in the SW corner of the block, surrounded by military accommodation. Note the off-grid original street lines, especially I Street, where accommodation for soldiers was extended onto the W half of the I St carriageway. Room X7-34 was subsequently partly demolished to make way for the corner of Roman Palace forecourt 58, positioned to block I St entirely.

28, or loggia 62 and room 2, offered fine facilities for visiting officials to entertain civic dignitaries or officers of the garrison. Then the E riverside suite offered very secure accommodation suited to the protection of governors or even the person of the emperor, with the secluded portico 64 and apse 21 for the most intimate of conversations.

The implication of this reinterpretation of the Palace as a multipurpose imperial facility is that in most years, for most of the time, it was probably not occupied at all, but was simply on a 'care-and-maintenance' basis, looked after by a few permanent service and security staff, like the multiple villas of great Roman magnates which stood largely empty between periodic visits by the *dominus*.

THE X7 'DOLICHENEUM'

Discovery, Excavation, Recording, and Publication

The temple at the S end of block X7 (Pl. XIX; Figs 6.17, 6.18, and 6.19), which the excavators concluded belonged primarily to Jupiter/Jupiter Dolichenus, was excavated with adjacent structures identified as 'barracks' in 1935–6, apparently by Comstock (*PR* 9.3, 97–134, figs 9–11, pl. XV.1).

The texts recovered were studied by Brown, the structures surveyed by Detweiler. Brown oversaw creation of the publication drawings in 1938–9, then war intervened. Gilliam wrote up the 'Dolicheneum' inscriptions, then worked ceased

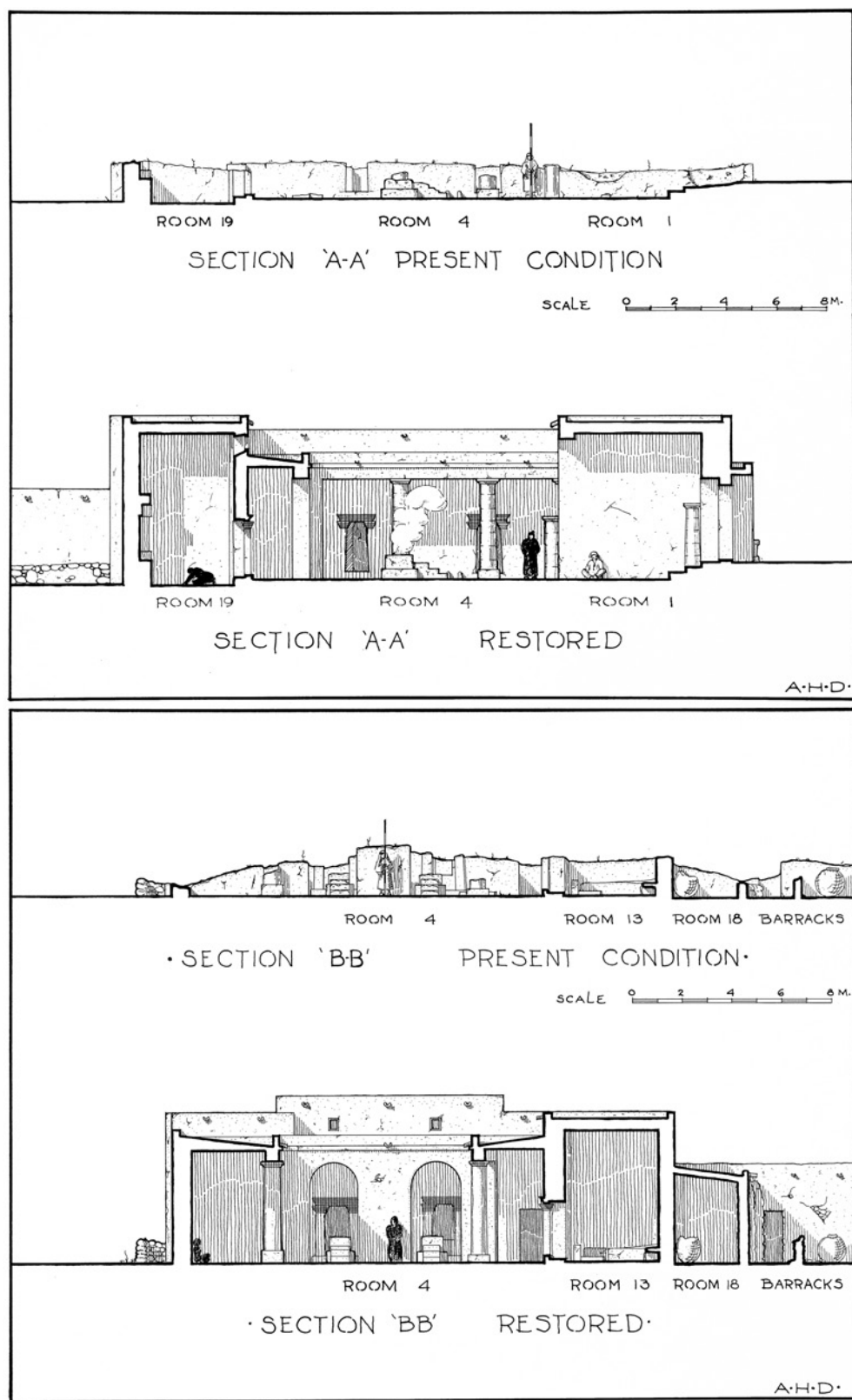


Fig. 6.18. Detweiler's sections/elevations of the X7 'Dolicheneum'.



Fig. 6.19. The X7 'Dolicheneum', showing court 4 from the SW.

until Ann Perkins composed the publication account, 'a difficult task in view of the loss of all the field notes' (*PR* 9.3, v). However, the original pencil plan is in the archive (drawing Dol. N.1), alongside the publication drawing (Dol. N.2: *PR* 9.3, fig. 10). The two walling conventions in the latter simply distinguish the late extent of the temple from the rest. The published elevation drawings also survive (Fig. 6.18: drawings Dol. N.3 and N.4; *PR* 9.3, fig. 11).

In the archive there is also a transcription of a letter from Frank Brown, date illegible, probably to Perkins in answer to an enquiry when she was working on the publication. Brown reports that 'F. Comstock was, I think (sic), in charge' of excavating X7, which shows the uncertainty of even some basic information by the time the site was written up. It also specifically says that 'the relative (sic) journal and excavator's notes were brought to New Haven'. Perhaps they were lost as a result of Rostovtzeff's incapacitation before Perkins took over. This troubled history helps explain shortcomings in the report.

The temple and adjacent buildings were inspected and photographed in 2007, and again in 2008 when a Total Station Survey of discernible fixed points was conducted. Further photography accompanied 'ground truthing' for the new plan in 2010.

The walls of the temple nowhere survived much over a metre at excavation, and suffered serious erosion over following decades, although this revealed some new features like the mouth of a cistern in court 4, and a blocked door in room 13.

The Temple Reconsidered

The following critical review should be read with Perkins's published account. She argued for a very late and short

timescale for the site, belonging entirely to the second half of the Roman period. She believed the temple and adjacent 'priests' house' had been built in the early third century, the house soon being demolished to make space in front of the new Roman Palace, with the irregular military accommodation found around and impinging on the temple only being erected in the 250s (*PR* 9.3, 98–9, 130). She concluded that the temple was 'in all probability' built in AD 211, the date of inscription no. 970 on the earliest altar to Dolichenus from the site (*PR* 9.3, 110–11, 130), or immediately before, by the legionary vexillations present at the time. 'Most of the dedicants and others named in the inscriptions are certainly soldiers, and the building remained a temple of the garrison, and not the town, to the end' (*PR* 9.3, 130). While other deities were also venerated in the temple, the excavators believed it was primarily dedicated to Jupiter Dolichenus from initial construction, on the basis of the three altars dedicated to that god found outside in 10th St (*PR* 9.3, 107–15, nos. 970–2). The following review of the evidence suggests that this account was wrong in every respect, from sequence and chronology to dedication.

Description and Review of the Evidence

Perkins noted that Dolicheneia had no fixed architectural form, but used local ones, potentially explaining the temple's resemblance to other Durene sanctuaries (*PR* 9.3, 106; Stoll 2001, 157), while differing in exhibiting an unusual S orientation (*PR* 9.3, 99, 123; Downey 1988). The temple was entered from 10th St, with two steps down into the court. In the entrance there was a round pedestal on the right side of the steps, and another inside 'just east of doorway 1–4', 'most likely to have been altars or pedestals for cult objects' (*PR* 9.3, 100), or perhaps bowls for ritual ablution.

From the twin *naoi* and altars it was concluded that this was a temple originally to 'two equal and independent deities' (*PR* 9.3, 97), although the E shrine, 19, is slightly bigger than 20 and internally more elaborate with an 'aedicula' against the rear wall; it also has a slightly bigger altar (*PR* 9.3, 99), perhaps suggesting one deity was dominant. No traces of a cult image remained (*PR* 9.3, 102, pl. XVI.2), nor any texts which could directly identify the deity of 19. However, *naos* 20 was believed to have been dedicated to 'the little-known mountain god Turmasgade' (*PR* 9.3, 97; Stoll 2001, 356). This was on the basis of two inscriptions, one on the 'lowest slab of the E jamb' of 20 to Zeus Helios Mithras and Turmasgade (*PR* 9.3, 102, no. 974), while 'In area 17 just west of the doorway to room 20 is a pedestal dedicated to Turmasgade' (*PR* 9.3, 102–3, no. 973). Turmasgade, like Jupiter/Zeus Dolichenus and Mithras, was almost certainly introduced to Dura by Roman soldiers.

The second original god of the temple was then *presumed* to be Jupiter Dolichenus because the earliest dated dedication

associated with the complex is on the earliest of the group of three altars which all name the god (nos. 970–2: see above, p. 29), on which basis ‘we can legitimately deduce that naos 19 was his’ (PR 9.3, 97; Stoll 2001, 357). This is a huge and unwarranted leap.

On the E side of 19 had been a ‘sacristy’ (21) with small inner room seen as storage (22: PR 9.3, 97). This area was later walled off as military housing. Other rooms and spaces around the court appear to have been concerned wholly or partly with feasting. Room 13, which ‘shows numerous peculiarities’, was also interpreted as an additional ‘chapel’ (PR 9.3, 103).

Room 13 had possessed figured polychrome murals, and two large plaster benches which may also have been painted (PR 9.3, 104). The N bench was 0.37m high, the S one 0.56m, with ‘traces of a raised rail along the front a short distance from the edge’ (PR 9.3, 103). These were likely dining benches as seen in other rooms. Their odd geometry may be a result of fitting them in around the E wall aedicule (opposite the door, neither being in the centre of the N–S walls), and around the hearth just inside the door. According to the published account, ‘in the doorway’ of 13 was found the lower part of a gypsum stele ‘in the form of an aedicula with twisted columns, containing the figure of a goddess and bearing on its base a dedication to “the Lady” [Kyria]... apparently the divinity to whose worship this chapel was devoted’ (PR 9.3, 103, 131, no. 976, pp. 118–19; Stoll 2001, 358). It should be noted that this object was not *in situ*; indeed, Brown’s archived report to the President of Yale on the continuing excavations for February 1936 says this was found ‘near the entrance’ of room 13, not necessarily in it, making the association of ‘Lady’ and ‘chapel’ shakier still. However, it is at least clear that ‘the Lady’ was named in an inscription found within the temple.

Room 3, the largest room in the sanctuary, had broad shallow benches suitable for dining, perhaps ‘a chapel which could have been used for the serving of the sacred meal that is known to have been a feature of the cult of Dolichenus’ (PR 9.3, 97, 104), although temple dining was anyway common at Dura. Its SE corner was found destroyed.

The rest of the temple originally comprised ‘undifferentiated spaces’ (PR 9.3, 97). Area 2 at the SW corner also had benches, 0.53m high, reportedly a later addition, as was the walling in of spaces to form rooms 9 and 24 (PR 9.3, 99, 105).

Room 9 only had an earth floor, and a large jar built into the NE corner, with an adjacent rubblework structure, possibly a table. Perkins suggested it was for preparation of sacred meals. A socket perhaps for a post supporting shelving was found just S of the door. In the SE corner was a small plastered bench or table (PR 9.3, 104).

Room 24, which was reached only from the space in front of the twin shrine-rooms, had a single platform at the back, 1.6m wide and 0.41m high. It had fragmentary wall paintings identified as ‘a scene of priests sacrificing before worshippers’.

There were no finds of any cult equipment, but a ‘Bacchic graffito’ was recorded on the N wall (PR 9.3, 99, 102, no. 979), attesting a further deity in the sanctuary. Could this have been a space for sleeping in the temple, perhaps for cures or divinely inspired dreams?

The three inscribed Jupiter Dolichenus altars remain critical to understanding the temple. While Dolichenus dedications outnumbered those to any other deity recorded at the sanctuary, the salient fact remains that all three were on altars found outside in the street. Perkins argues that the Dolichenus altars ‘were probably carried out of the temple when Dura was sacked’ (PR 9.3, 131). Unfortunately, no surviving archive plan or photograph shows exactly where they were found, and they were not marked on the publication plan; their approximate positions, inferred from the textual description, are indicated in Fig. 6.17. The earliest, with its Latin inscription dated 211, was a damaged gypsum altar, ‘Found before the entrance to the temple, to the east’ (PR 9.3, 107–10, no. 970). It is not clear from this whether it was found standing *in situ* or, if found laying on its side, whether it appeared just to have toppled from its original position, or had been moved any distance. A second altar has a badly weathered Greek inscription ‘to Zeus the greatest and god of Doliche’, dated 251, and was also ‘found before the entrance to the temple, to the east’ (Fig. 6.20, L; PR 9.3, 110–12, no.



Fig. 6.20. Two of the Dolichenus altars from outside the X7 temple. L, Inscription 970 of AD 211. R, Inscription 972 of 251–3. Not to same scale.

971, and pl. XIX.2). The third altar, dated by imperial titles to 251–3, again inscribed in Greek and dedicated to the same god, was also ‘found before the entrance to the temple, to the west’ (Fig. 6.20, R; *PR* 9.3, 112–14, no. 972).

It is possible that all three altars had originally stood inside the sanctuary, and been dragged out in some act of desecration. But why move them, yet not smash them? They are weathered, but not defaced. Much more plausible is that they had always stood outside the temple, and were found where they had toppled as a result of eventual collapse of the building facade. It is proposed that in 211 an altar to Dolichenus was established just outside and to the right of the temple door, as one of Detweiler’s elevations shows (Fig. 6.18, A-A). Some decades later another two were set up in rapid succession either side of the entrance. This implies that cult activities at the shrine, at least to Jupiter/Zeus Dolichenus, extended out into the adjacent street. Indeed, in the case of Dolichenus, they may have been confined to the street. Roadside altars to other deities existed in the Palmyrene Gate (pp. 233–234), while another rough parallel may be offered by the ‘shrine of Gemellus’, a row of altars and painted inscription against the pronaos facade of the Temple of Atargatis in H2, dated 225 or 235 (*PR* 3, 10: D.145 and 146; negs K273, K421). Indeed the Dolichenus altars may actually have comprised one of two ‘satellite’ shrines abutting the walls of the *temenos*, the other in room X7-5 of the non-communicating adjacent military housing which produced a striking assemblage of an altar and figurines all depicting eagles, symbol of Jupiter/Zeus (p. 185).

Crucially, the Dolichenus altar of 211 anyway does not date the sanctuary’s construction, but only provides a *terminus ante quem* for it. Understanding the chronology of the temple depends on considering its stratigraphic and spatial relations with surrounding structures, especially the adjacent ‘priest’s house’ and the military accommodation which succeeded it.

Adjacent ‘Priest’s House’

Another structure on the E side of the temple was apparently built at the same time, being described as ‘in bond’ with it (*PR* 9.3, 97). It was identified as the temple’s ‘priest’s house’ (*PR* 9.3, 97), although no direct communication between the structures was identified (*PR* 9.3, fig. 9). However, examination in 2008–10 located a blocked doorway which, at the time of excavation, had been hidden by the aedicula in room 13. This makes the identification more plausible.

Only one room and one other wall line of the original house were identified in the reconstructed plan (*PR* 9.3, fig. 9), which dotted in the E wall of this house as following the supposedly orthogonal line of I St. However, this reconstruction of the both the position and line of I St, critical to Perkins’s interpretation, is erroneous (below).

Sequence, Chronology, and Interpretation of the X7 Temple and Adjacent Structures

Perkins’s account claimed three structural phases for the area of the ‘priest’s house’, and squeezed the entire sequence into the third century AD. Stage I comprised the temple and house, which she stated ‘must have been completed by A.D. 211, the date of inscription no. 970’, the first altar to Dolichenus, supposed primary dedicatee of the sanctuary; she assumed the altar marked completion of a new temple (*PR* 9.3, 97), ‘which in all probability was built that year or shortly before’ (*PR* 9.3, 130). In Perkins’s Stage II, ‘The house of the priests was razed to make room for Palace court 58 and to allow a free space in front of the gateway to the latter’ (*PR* 9.3, 97). Her Stage III comprised construction of ‘military barracks’ over and to the N of the site of the priest’s house, and partially impinging on the temple. She dated this phase to the 250s, on the basis of proximity of the two Dolichenus altars dated to 251 (above) which ‘may represent an addition to the garrison of Dura’ made at that time (*PR* 9.3, 97).

Both this sequence and chronology are flimsy in the extreme, and appear profoundly mistaken. To begin with the sequence, ‘Stage I’, simultaneous building of temple and priest’s house, was dated to the early third century on the basis of the date of the earliest Dolichenus altar. However, it is a major and unwarranted assumption that this small altar—found outside the sanctuary—marked the dedication of the temple; it provides no more than a *terminus ante quem*, in no way proving that temple and house were newly built in 211.

‘Stage II’ was supposedly initiated by razing of the ‘priest’s house’, allegedly because the stratigraphically later corner of the Roman Palace forecourt 58 impinged on it, but mostly because it was presumed an open space was required here in front of the new Palace facade. This space was envisaged to have existed for several decades, since when Perkins wrote construction of the Roman Palace was dated to the 220s, and ‘Stage III’ to the 250s. However, ‘Stage II’ never occurred at all. To begin with, the corner of the new Palace did not, as Perkins believed, impinge on the site of the ‘priest’s house’ at all. Her reconstruction of the house in *PR* 9.3, fig. 9 erroneously included some later military housing walls actually impinging onto the carriageway of I St, which lay 2–3m W of the line she showed; the frontage of the original street was also in reality several metres W of her reconstruction, and veering off the line of the street grid. In this area, 10th St curved S from it projected gridline, and I St curved W to meet it roughly at right angles (Fig. 6.17). In fact, the later Palace corner neatly blocked the carriageway of I St without impinging on the original footprint of X7.

Even weaker is the idea that the rest of the house was also razed to create space in front of the new Palace. There was some space anyway, provided by the former carriageway of I St. However, there is no indication that the military builders were interested in creating any plaza in front of the

Palace. The grand portal simply opened onto the 10th St-I St junction; the rest of the Palace exterior appears to have comprised blank walls of a structure rather framed as a grand internal space. Then there is a new chronological problem: the Roman Palace now looks to have been built as part of the major building programme in the 210s, leaving no time for Perkins's 'Stage I' either.

Finally, dating construction of the military housing phase to the 250s on the basis of two inscriptions found outside another building is a *non sequitur* even more glaring than use of the earliest Dolichenus altar to date the temple. There is no archaeological reason at all to link altars and 'barracks'.

Rather the evidence suggests a quite different sequence and considerably longer timescale. Indeed, it will be argued below that the X7 'barracks' which succeeded the 'priest's house' actually preceded construction of the Roman Palace, pushing the temple complex back probably into the second century (pp. 184–5).

Did the temple even belong to the Roman period, or could it have been a Parthian-era foundation? Its layout is intriguingly ambiguous when compared with other Durene sanctuaries. As Perkins herself noted: 'It is interesting that the Dolicheneum is built on the principle of the Parthian period temples at Dura (an open court surrounded by rooms), otherwise unknown in the religious buildings founded during the Roman occupation: the Temple of the Roman Archers, the Tychaeum, the Mithraeum, the Synagogue, and the Christian building' (PR 9.3, 105), to which we can add the *aedes* of the *principia* and its associated second sanctuary, E7-18/19. Internal modifications involving construction of the (probably private) 'chapels'/feasting rooms seen at other temples could suggest prolonged, civilian-style use.

On the other hand, Baird has emphasized points of similarity with the intrusive temple forms associated with the Roman garrison, notably its S alignment, smaller size, and use of four columns in the court (pers. comm.). Certainly, the epigraphic record from within the temple itself, supplemented by the Dolichenus altars, is strikingly military, the great majority of texts being set up by soldiers (nos. 970–4 and 976–8), which shows that the temple was actively used during the life of the base. What it does not prove, or even indicate, is that soldiers founded the temple. Roman soldiers at Dura were more inclined to leave inscriptions than the civil population. The sample of texts is also small anyway, probably limited by the relatively poor general preservation of the building, the meagre *in situ* survival of wall-plaster likely robbing us of dipinti and graffiti which would have given us a fuller picture. However, especially significant is that the Greek inscription from the lintel of room 20, the text which most plausibly relate to the foundation of the temple. Although fragmentary and hard to read, this seems to be entirely civil in character, a list of names with, perhaps, a Seleucid-era date, suggesting an originally civilian milieu (PR 9.3, 117–18, no. 975, and pl. XXI.1).

From this review, on available evidence it is most likely that the X7 sanctuary (along with its 'priests' house') was founded early in the Roman period, if not in the late Parthian era as another part of the second-century wave of temple building at Dura (Downey 1988, 88–129). It was certainly being frequented by soldiers no later than 211. It produced extensive evidence of continued use as a temple during the military period. The adjacent 'priests' house' was not demolished and left as open ground because of construction of the Roman Palace, but was directly converted into military accommodation, long before the 250s as proposed in the publication.

In conclusion, the evidence for multiple deities including manifestations of Jupiter/Jupiter inside the temple, with veneration of Jupiter/Jupiter Dolichenus apparently confined to an external street-side shrine, means that it stretches credulity to call the sanctuary a Dolicheneum. With the adjacent 'eagle shrine' in X7-5, if a name must be chosen, it may make best sense to think of it as yet another temple dedicated primarily to manifestations of Zeus. Stoll also had his doubts, proposing it might better be considered a [multi-deity] *Tempelbezirk* (temple precinct) than Dolicheneum (Stoll 2001, 356). However, to minimize potential confusion of too many name-changes to structures, here the established name is retained but its problematic nature indicated by quote-marks.

THE X9 TEMPLE

Excavation and Recording

Previously excavated building remains, mostly comprising low wall foundations, were noted by Leriche in block X9 in the far N of the city (Fig. 6.1), and identified as a 'new' temple (Leriche 1997a, 896–7). However, these are nowhere mentioned in the Yale expedition publications. No plans, site photographs, or notes exist in the archive specifically relating to work in X9 (Matheson 1993, 212), but air photos and finds records help establish when it was undertaken.

The remains of the X9 temple had comprised a mound, low but conspicuous in this otherwise very flat corner of the city. An oblique air photo taken on 15 September 1934 (Z1) shows that a trial trench had already been cut in it by then. The structures were not included in Detweiler's city map based on a 1935 survey, but appear fully excavated in an oblique shot taken on 6 March 1936 (Yale neg. Z33: Matheson 1993, 210–13, fig. 13), indicating the site was dug in the ninth season, confirmed by the only recorded objects from X9 being listed in that season's finds register (Matheson 1993, 210).

The X9 temple was, then, excavated in association with the nearby Roman Palace/'Dolicheneum' excavations. It was perhaps hastily cleared late in the season, around February 1936, most likely by Comstock alone after the departure in January of du Mesnil. However, any plan or notes were subsequently lost, perhaps along with Comstock's 'Dolicheneum'

records. (Welles noted that some ninth- and tenth-season field records were lost: *PR* 9.3, v.)

The X9 Temple and the Military Base

The X9 temple enclosure covers a modest area of c.21m N–S, and 24m E–W, albeit with an external altar to the E. Incompletely excavated, it comprised a court with rooms on the W side, the sanctuary facing E like most Durene temples. It appears to have possessed two cellas, like the temple of the Gaddê. Leriche noted its location beside H St, exactly fitting into the urban grid (although ancillary structures at its rear—more military housing?—impinged on the line of H St), and regarded it as undoubtedly antedating the Roman camp (Leriche 1997a, 896–7). ‘Greek-style column drums’ were reused in the building, ‘which suggests a Hellenistic temple renovated in the Parthian period’ perhaps after the 160 earthquake (Matheson 1993, 212–13). No epigraphic or other finds as yet give clues to the cult. MFSED subsequently investigated the remains (Leriche et al. 2011, 35, figs 1–24). Leriche concluded that X9 was deliberately deconsecrated and razed, and has suggested this occurred at military takeover, although the basis for this dating was not stated (Leriche et al. 2011, 35; Leriche 2016, 171–3). Its razing could rather have been in the context of the 250s.

Little more specific can currently be written about this building, beyond its general appearance as another ‘Mesopotamian’ style courtyard sanctuary to an unidentified deity or deities. It is therefore likely, as Leriche argues, to pre-date the Roman base, but with regard to these points and the question of its decommissioning, full publication is awaited.

It is also worthy of note that this temple abutted the great H St, although it appears to have backed onto it. It was probably accessible from both H and I Sts. The large altar to its E (Leriche et al. 2011, 35) would have been close to block X9’s I St frontage. Its position may suggest that it boasted a plaza to its E front analogous to those outside the Temples of Azzanthkona and Bêl.

MILITARY HOUSING E OF G ST

As we have seen, the W side of G St formed a continuous perimeter line for at least part of the Roman base area. A second line was subsequently established along the N side of 10th St, from G St (blocked by extension of E3-B, an adjunct of the E3 bath) to the river cliff: I St, and any N–S access E of that line, was blocked by the blank outer wall of the Roman Palace complex. The only access between the civil town and the zone so defined was along the great H St. Much of the area E of G St and N of 10th St was apparently given over to military accommodation, although this was explored in detail only in the S part of X7. After discussing that, accommodation in the rest of the area N of

10th St is considered, before presenting arguments that the blocks between G St, 10th St, and the head of the inner wadi were also converted to military housing.

MILITARY HOUSING IN X7

Discovery, Excavation, and Publication

Research and publication of the area of ‘barracks’ revealed to the E and N of the X7 temple (‘Dolicheneum’: Figs 6.17 and 6.21) was discussed above (pp. 177–178). The walls of this lightly built military accommodation survived to less than 0.5m on excavation, and by 2005 many wall lines were obscured by collapse and vegetation cover. The poor state of this area meant that only limited survey points could be identified and taken in 2008 and 2010, enough to fix the published plan on the modern grid but not to verify all details.

Description

At the S end of block X7, the area E and N of the temple ‘was filled in with a series of barracks units of haphazard planning and slipshod construction, like the barracks in E8 and other parts of the city’ (*PR* 9.3, 99). This identification is further supported by the prevalence of large ceramic vessels as water containers or ovens, indications of stables, etc. A fragmentary dipinto from room 10, of an eagle and thunderbolt with a list of names, almost certainly soldiers (inscription no. 983), provides supporting epigraphic evidence.

As explained above (pp. 179–181), the excavators’ understanding of the sequence at the S end of block X7 was that: the temple and adjoining ‘priests’ house’ were built together early in the third century (Stage I); the ‘priests’ house’ was demolished and left as open ground on construction of the Roman Palace, so as not to obstruct its facade (Stage II); the area then stood open for perhaps three decades until final alterations to the plan of the temple saw the walling off of rooms 21–3 to incorporate them into new military housing behind (*PR* 9.3, 99), created in connection with supposed arrival of new military contingents inferred from, and dated by inscriptions 971–2, dated AD c.251 (Stage III). In fact, this scheme was a house of cards.

It was argued (p. 181) that the existence of ‘Stage II’, with the priests’ house razed to create a long-lived open space in front of the Roman Palace, is unwarranted. Apart from its elaborated porch and the line of the access route to the 10th St/I St junction immediately in front, there is no indication that the military was concerned for the outside of the Palace to be seen from 10th St.

There is no reason to think other than that the ‘priests’ house’ was just another of many buildings in the N quarter of the city given over directly for conversion to military accommodation. This was part of a wider programme turning most



Fig. 6.21. The X7 military housing from the S, with room 5 L foreground, 12 at R, and the Roman Palace and its baths background R.

of X7 to soldiers' housing, also involving taking some of rear rooms of the temple (21 and 22), echoing partial requisitioning of the Temple of Azzanathkona. It is not clear that much of X7 was already built up, apart from its S frontage.

There is currently no absolute dating evidence for creation of military housing in X7. Perkins' argument that the two Dolichenus altars at the X7 temple dedicated in the 250s also dated the 'barracks' is completely spurious; the altars have no connection with the military accommodation at all. They merely reflect a lasting military presence in this quarter of the city—which the earliest Dolichenus altar, of AD 211, equally suggests went back at least to Severan times. Indeed, reconsideration of the evidence for the X7 temple indicates that it was probably a second-century foundation (p. 182), allowing the neighbouring military accommodation to be much earlier than Perkins envisaged.

Perkins also concluded that the military accommodation had to be late on stratigraphic grounds, because she believed it post-dated construction of the Roman Palace, at the time

envisaged to be in the 220s. However, this, too, looks erroneous. Unfortunately, the stratigraphic relations between the X7 buildings and Palace court 58 were tenuous. Nevertheless, examination of the plan of the military buildings suggests that they were built before the Palace was laid out, rather than after.

As mentioned above (p. 167), around their junction, the lines of 10th and I Sts both wandered off the lines of the Hippodamian grid. Visible wall lines and magnetometry show that, E of H St in this cliff-bounded corner of the upper town, 10th St turned S, following the line of what had perhaps been the original approach road to the N gate of the early Hellenistic Citadel before that was rebuilt and separated from the plateau by a huge quarry/'moat' (Fig. 6.1). At least N of the axis of 10th St, I St had also been laid out, mostly on its designated grid line, but as it approached the bend in 10th St it, too, curved somewhat, to the W. The S end of block X7 was, then, orthogonal at its SW corner, but its SE corner was displaced S and W of its nominal grid position,

resulting in slightly curving S and E street frontages. The footprint of the military accommodation conforms to this geometry, with important exceptions.

When most of X7 was converted to military accommodation, that within the former 'priests' house' at the SE corner was carefully confined within the old street frontage lines. However, along I St to the N, as with other military accommodation e.g. in J2 or E5, to maximize roofed space military builders were permitted to encroach onto the adjacent carriageway up to its centreline (rooms 29 and 33). Construction of the modified I St frontage also appears to have involved creation of a very small room, S of 29 and E of 32, not accessible from within the block (here called 34). It is suggested that this may have been one of a number of a sentry posts and guard rooms in the base, here controlling movement along I St to and from 10th St. Subsequently 34 was destroyed by construction of the corner of the Roman Palace, which thereafter neatly blocked I St at this point. It is worth noting that in his archived report to the President of Yale for February 1936, Brown described the military accommodation as 'partly engulfed in the later construction of the [Roman Palace]', showing that on the spot he, too, thought 'barracks' preceded Palace.

With the Roman Palace now also looking to be built in the 210s, this sequence pushes foundation of the military occupation of X7 far earlier than Perkins envisioned. It is possible that the conversion was itself part of the 210s base enhancement programme, with the layout of the Palace and the blocking of I St being a change of plan very soon after. However, the military housing conversions in X7 could now be significantly earlier than the building scheme of the 210s, as seems to have been the case in e.g. E4, E5, and E8, perhaps belonging to the later second century. If so, the pre-210 military base area already extended not just from the W defences to F St, but continued to at least I St and likely all the way to the river cliffs.

Layout of the Military Accommodation

In the publication, discussion of the conformation of the 'barracks' was confined to two brief passages:

The organization was by *contubernia*, each *contubernium* with its *decanus* having a group of rooms, usually three, around a small courtyard; water was provided for each by a barrel-like *dolium*, and presumably each unit did its own cooking. The east corner (numbered 12 [on Fig. 6.17]) was a stable. (PR 9.3, 99)

Little need be said about the details of the barracks rooms. The following units can be recognized: (1) rooms 21–23 with court 30; (2) rooms 28–29 and 33 with court 31; (3) rooms 11, 32, and 27 with court; (4) rooms 5, 10, and 18 with court 7. Area 12 was apparently a stable. (PR 9.3, 106)

Erosion and undergrowth obscured most details when the area was examined in 2005–10. However, even without re-excavation, we can still go further than these meagre

observations. To begin with, they assume that the soldiers were organized in their accommodation by *contubernia*, which many junior soldiers may well have been, but some of these units perhaps accommodated family groups.

The remains comprised one entirely definable unit, and parts of two or perhaps three others. On the E side of the temple is a house-sized unit corresponding to the footprint of the former 'priests' house' (5, 7, 8, 10–12, 18, and 32 with the ad hoc addition, through creating and blocking doors, of room 27 to the N). Few of its spaces are orthogonal, partly due to the irregular shape of the plot. It was accessed only from 10th St to the S, and perhaps from the stub of I St on the E. In detail, the layout of this unit looks to be divided into smaller clusters of rooms similar to those seen in e.g. J7.

The multiplicity of large ceramic vessels on the plan, whether for water storage or as ovens, suggests multiple occupancy. With regard to detail, it is especially difficult to be sure what was going on at the SE corner of the block which seems to have been ephemerally preserved or, where a door onto 10th St would be expected, the wall was entirely absent at excavation. However, the 1936 vertical air photo shows a shadow from the T-shaped wall in the middle of 12. Area 12 was thought to be a stable, perhaps because a drain was identified at its SW corner. The unnumbered spaces between 12 and 32 include a *dolium* or oven. The W side of the area, in the lee of the more substantially built temple wall, was much better preserved. Here Perkins identified a unit comprising 5, 10, and 18, with 7 supposedly a court. It is more likely 7 was roofed, while this scheme also ignored 8, which opened off 5. Perhaps 5 and 8 comprised a two-room unit, 18 and 10 another, with 7 as communal space—if the several *dolia* or ovens shown in these rooms indicate more than one unit. Rooms 11, 32, and 27 do indeed make sense as another unit linked by an unnumbered central court. Room 11 appears to have a plaster trough on the floor and so was likely a (or another) stable. The narrow space on the S side of 32 may be a stairwell for roof access.

Room 5 produced a striking group of finds, which raise questions about the entirely domestic nature of these spaces. It contained three eagle figurines, two in copper alloy and one in alabaster (Fig. 6.22; PR 9.3, 128, nos. 1–3) and a small unincised alabaster altar, also originally topped with an eagle statuette perched on a ram's head (PR 9.3, 127, I 742, pl. XXIV.2). Might these have been moved from the adjacent temple at some late stage—or do they represent religious activity within the room where they were found? Could room 5 have been a small shrine in which, like the Dolichenus altars, proximity to the X7 *temenos* boundary was significant? Eagles are of course symbols of Jupiter/Jupiter, venerated in multiple guises the other side of the wall from room 5. It is also intriguing that an eagle graffito was found in room 10, again on the wall bounding the temple (PR 9.3, 122, no. 983).

To the N of this unit (or closed group of sub-units), and along the back of the temple, are further irregular rooms and spaces, hard to interpret because only partially excavated.



Fig. 6.22. Eagle figurines (nos. i748, L, 57mm tall, and i745, R, 48mm tall) from the possible Jupiter/Zeus shrine in X7-5.

Although no other street doors were identified, these areas would have been accessed from H St and/or I St. As Perkins noted, 28, 29, and 33 all give onto 31, likely an open court, while 21–3 give onto area 30. The status of the curving wall in 30 is unclear. It possibly represents post-abandonment ‘squatter’ activity, in which case 30 originally extended to the N, apparently with access from room 26? to the W as well. On the far W side of the excavation is another room, 25, apparently accessed from the N, as part of yet another unit. A road-side oven in H St may have belonged to it.

MILITARY HOUSING N OF 10TH ST AND THE ROMAN PALACE: E1, E9, X5, X7, X9, X10

This was the northernmost corner of the city, articulated around the line of the major H St which ran through it to the defences along the N wadi (Fig. 6.1).

The part of this zone W of H St comprised the unexcavated E1, which magnetometry indicates was roughly a standard-sized block and fully built up with residential accommodation like E6 or E8. However, its W side is indistinct, and likely conformed to the off-grid course of G St in

this area. Clearer in the magnetometry plot (Pl. VIII) is its N boundary, and the line of 12th St. This was noticeably pushed off grid alignment, from its junction with H St angling somewhat S to avoid the sharp re-entrant of the city defences along the N wadi edge. This local alignment projected beyond G St leads to the widening between two of the E3 aqueduct piers, indicating ‘12th St’ continued as a lane across the N edge of E3 to meet the plaza in front of the Temple of Azzanthkona at F St. There are no clues to what may have lain in the quadrilateral N of E1 and W of H St which, now 12th St has been documented, is labelled E9. However, it is presumed that E1 at least was fully converted at an unknown date to military housing.

E of H St and N of the ‘Dolicheneum’, with local exceptions such as the X9 temple discussed above, stratigraphy is generally very shallow. In places near the river cliff bedrock is visible. Magnetometry indicates buildings along the E side of H St in X7 N of the temple. However, there are few if any indications of substantial buildings E of this street frontage. Nevertheless, laying out of I St is attested by the alignment of the E side of the excavated X7 structures, with several foundations in the nominal area of ‘X5’, including one under the Palace stable 57 (Fig. 6.2), suggesting that had been partly built up too, before the Palace was constructed. The X9 temple also apparently faced onto the line of I St.

12th St had apparently been laid out between H and I Sts, but later closed off by a wall on the Palace alignment (p. 173). Somewhere across the N plot of block X7 there must have been access for people and horses from H St to the closed-off section of I St and the yard by the entrances to the Palace via 58 and 30 (Fig. 6.2). Otherwise, except for the putative Palace baths service yard, much of this area was likely filled with lightly built military housing, like that excavated at the S end of X7. However, in the zone near the river cliff, erosion may have completely erased any archaeological evidence.

MILITARY HOUSING S OF 10TH ST AND THE ROMAN PALACE: E2, F1, X8, ‘X1–X4’, AND ‘X6’

It remains to discuss the status of a couple of whole and several partial blocks between the military boundary lines on G and 10th Sts, and the edges of the inner wadi (Fig. 6.1). There are reasons to suggest that, even though they lay outside the two identified military boundary lines, these were also wholly or partly taken into military hands.

In particular, blocks F1, E2, and X8 lie between the military boundary lines and one of the most important intersections in the city, and a critical one for the military base. Here was the junction of: H St, leading from the Palmyrene Gate and Main Street, and from the *Strategeion* and agora, to the N part of the base plateau zone; the Wadi Ascent Road, from the River Gate and lower town, and from the Citadel and

military campus zone; and 8th St, principle axis of the major W part of the base on the plateau. It would clearly make sense for the garrison to control the junction, and likely the buildings around it. But how was military control physically defined in this area?

While G and 10th Sts formed continuous control lines, only parts of these lines were blank walls (notably the Palace perimeter and E4 *palaestra* wall). S-facing structures like the X7 temple and the adjacent house converted to 'barracks' still opened onto 10th St; the continuous physical control line was their rear property boundary. Likewise, the great E4 house also had a door onto G St. E2, which lay between the junction of the two boundary lines and the strategic 8th/H St junction, is a virtually unexcavated block which magnetometry suggests was fully built up with housing. It is likely this was fully taken over and converted by the military. A specific indicator is partially excavated projections on the W side of E2, onto the carriageway of G St, similar to the limited encroachments onto roadways seen in military accommodation in e.g. J2, E5, X7.

It is also suggested that at least the properties in F1 facing onto 8th St were also taken over by the garrison, as they were in all other blocks to its W.

On the E side of H St, N of the Wadi Ascent Road, lies the fragment of plateau S of the 'Dolicheneum' and Roman

Palace. This area was never excavated, although foundations and walls attesting pre-existing structures were encountered at the edge of the Palace excavation. Other surface indications and magnetometry show that much of block X8 was laid out and built up in the normal way, including its W frontage on H St and its N frontage on 10th St opposite the X7 temple. However, E of the junction of 10th and I Sts the city grid broke down, or rather had been pre-empted, since the major street in this area had apparently been defined at a very early date. While magnetometry E of X8 showed little, the orientations of wall foundations revealed outside the Palace, plus masonry or lines of plaster visible in the plateau surface to its S, show that E of the line of I St, 10th St curved strongly to the S, with adjacent buildings conforming to its course. In consequence, nominal city blocks X1–X4 and X6 were never laid out as such; this area was always irregular in layout. The excavators argued it had been sparsely occupied (*PR* 9.3, 70), but it is clear that some substantial buildings had to be demolished here to make way for the Palace (Downey 1993, 188).

Effectively surrounded by military installations and accommodation, it is proposed that this corner of the plateau was also taken over by the garrison, and probably used for more soldiers' housing.

The Wadi Zone

Campus, Citadel, and C3 Bath

From the junction of H and 8th Sts, which gave access to the twin main axes of the military base zone on the plateau, H St led S to the bulk of the civil town and ultimately to the Palmyrene Gate, the steppe plateau W of the city, and the roads W to Palmyra and NW up the Euphrates to Syria. The fourth side of the crossroads followed a curving course SE, down into the inner wadi, then snaking through the irregularly laid-out old lower town to the now-lost River Gate, portal to the Euphrates and its plain (Fig. 7.1; Pl. XX).

Of most immediate significance is that the Wadi Ascent Road also linked the plateau military zone with what can now be seen as another major area of military control, in the old Citadel, and on the adjacent wadi floor. The N part of the wadi floor is now known to have accommodated two military-built temples, the larger of which, the A1 ‘Temple of the Roman Archers’, was axial to the long wadi floor, which in the Roman period appears to have comprised one of the largest areas of open ground inside the city walls. This is interpreted as the *campus*, or military assembly and training ground, extension of which was commemorated in an inscription found in the temple (p. 190). In 2011, what is virtually certainly a second military temple was found in the wadi close by the first, built against the foundation of the Citadel. This is here referred to as the Military Zeus Temple.

Behind the Temple of the Roman Archers was a lane leading from the Wadi Ascent Road to the N gate of the Citadel. It helped define a further de facto enclosure, effectively surrounded by other military-controlled areas and so also presumed to have been in military hands.

The Citadel itself, while in Roman times already ruinous on the river side due to cliff falls, still formed part of the defences. Moreover the massive shell of its Hellenistic walls now also appears to have been adapted to yet more military accommodation, some of it two storeys or higher. That within its S end also spilled out of its gates, to incorporate former civil housing at the W corner of block B2 which nestled against the SW Citadel wall. This appears to mark the SE limit of the unified military base zone.

The military quarter, then, extended all the way down the inner wadi to reach the heart of the lower town, less than

100m from the River Gate. Indeed it reached further still, if the bath the garrison built just across Lower Main St to the S in C3 is also regarded as part of the military quarter. But exactly where lay the boundaries of military control in the wadi, to the S and even more on the W side, remains moot.

MILITARY ENCLOSURE BETWEEN CITADEL AND WADI EDGE IN A1

The N end of the inner wadi formed another physical enclosure, bounded by the Wadi Ascent Road, the lofty quarried plateau edge, the city wall, N end of the Citadel and the blank rear walls of the Temple of the Roman Archers and adjoining house (Fig. 7.1). The area was accessed by a lane from the Wadi Ascent Road to the N gate of the Citadel. Enclosure of this area, perhaps already established, was certainly consolidated by construction of the Temple of the Roman Archers.

Much of this zone had been quarried to provide material for building the Citadel, the quarry itself creating a massive dry moat by removing the already-eroded neck of land linking the finger of high ground used for the stronghold to the main plateau. The city wall subsequently linking Citadel and plateau edge was partially cut from the living rock, partially masonry superstructure. Originally a postern led to a cliff path down to the plain, but this was blocked by a stair giving access to the wall-walk, presumably one of the series of wall-stairs built late in the Roman period.

Much of the area had been built up with civil housing but, excavated in the second season and with especially poor records, it is not well understood (*PR* 2, 60). Two plans exist, *PR* 2, pl. VIII, and Detweiler’s preparatory plan for the city map, which disagree almost completely regarding layout of structures N of the lane articulating the enclosure. In 2005–10 the area was eroded, overgrown, and hard to make sense of as the exposed remains appear to represent deep stratigraphy and multiple phases. Little can definitely be said of it, but it is most likely that the civil housing was converted to military accommodation.



Fig. 7.1. General plan of the Citadel and inner wadi zone.

THE MILITARY *CAMPUS* ZONE

The floor of the N branch of the inner wadi, in the shadow of the Citadel, comprised a large area of open ground, flat if gently sloping to the S. At its N end two Roman military temples faced onto what is interpreted as a military *campus* or training ground.

An abutting, though non-communicating dwelling adjoining the W side of the Temple of the Roman Archers, house A1-A was evidently occupied during the Roman period, produced evidence of figural wall paintings, and other features and finds consistent with Roman military connection, including a drain composed of ceramic pipes and a large *dolium* (Baird 2014, 304; *PR* 2, 13, 16, 35, 58–61). It was most likely another civil house converted to soldiers' accommodation.

THE 'TEMPLE OF THE ROMAN ARCHERS', A1

Discovery, Excavation, Recording, and Publication

The 'Temple of the Roman Archers' is also known as the 'Military Temple', both ascribed names deriving from a military building dedication found on an axial internal altar (Figs 7.2–7.4). Because in 2011 a second Roman military temple was found nearby in the nominal area of block A1 (although its extent is ill-defined and arbitrary, since the orthogonal grid was not applied in the wadi), these are distinguished as the 'Temple of the Roman Archers' and 'Military Zeus Temple' respectively.

Along with the adjoining house A1-A discussed above, the temple was excavated by Hopkins in the second season, work briefly outlined by Pillet (*PR* 2, 2, 16–17), with more details, including the altar inscription, furnished by Hopkins (*PR* 2, 57–61, pls V and VIII, XXXV.2, XXXVI.1 [plaster frieze], and 83–6, inscription H1, fig. 1).

Artefact records are relatively meagre, due to its excavation before formal finds registers were introduced. It is hard to be sure what came from the temple and what from nearby housing, but it was reported that the area produced a concentration of relatively fine objects, including faceted glassware, pottery lamps, 'a great ring and loops of bronze (?)' and 'a beautiful bronze cup ... with three little feet' (*PR* 2, 16).

The archive contains few records additional to the *Preliminary Report*. There are photographs of the structure and of artefacts recovered, but no MS notes other than annotations to a print of photo B94. Three plans of the building exist. Two were published in the *Preliminary Report*, a detailed drawing by Pillet (*PR* 2 pl. V), and a smaller one by Hopkins as part of an overall plan of the buildings dug in A1 (*PR* 2 pl. VIII). These disagree significantly with regard to the conformation of the temple. The third, Detweiler's later resurvey for the great city map, agrees with neither of the *PR* 2 plans.

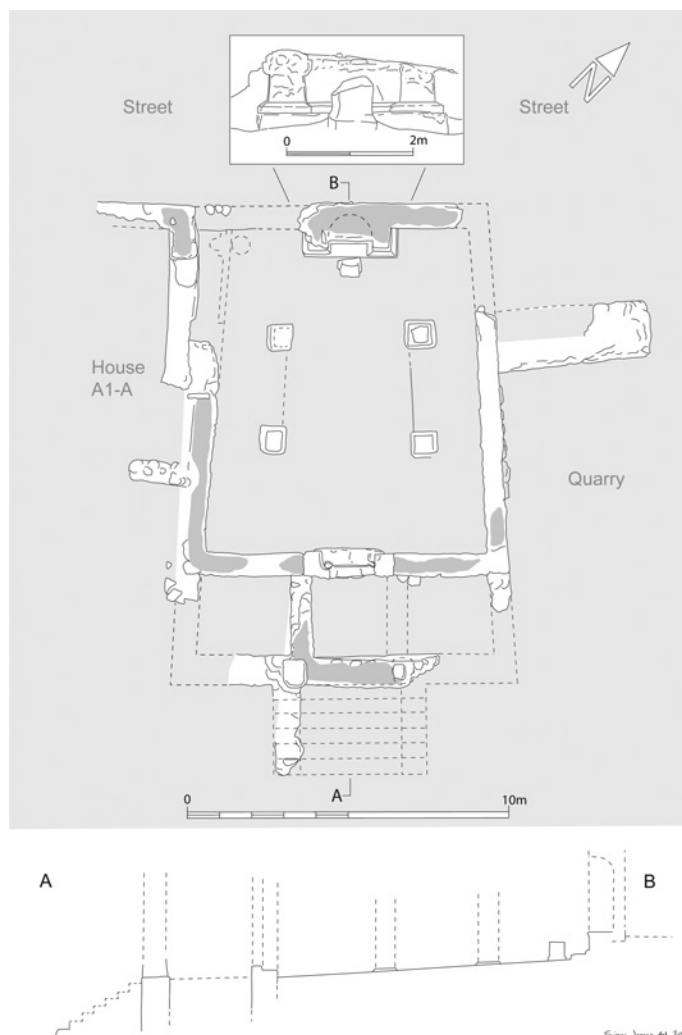


Fig. 7.2. Top, new plan of the A1 Military Temple. Dark grey denotes traces of mud-brick superstructure on top of mortared-rubble foundations. Bottom, profile of temple podium to same scale.

Resurvey showed all three contained important errors. No elevations or reconstruction sketches are known.

The temple was resurveyed using a Total Station, closely inspected, photographed, and drawn in 2008. Some sections of the outer wall had collapsed since excavation, including much of the southern porch structure, and others were in danger of falling. The four internal pier bases were also extensively damaged. The altar area, however, was in good condition. Recognition of the poor state of the structure prompted swift conservation work in 2009 by MFSED, involving further cleaning which revealed more details recorded in 2010.

Description

The building stands near the N entrance to the Citadel, its single, imposing axial door looking down the wadi. It stands



Fig. 7.3. Archive view from the NW tower of the Citadel, showing the temple (L foreground, facing L) with abutting house A1-A beyond, with lane to N Citadel entrance at R. Note fallen piers inside the temple, and the ancient repair in dry stone in the foreground.

at a point the temple where the slightly sloping wadi floor began to trend more steeply upwards towards the edge of the plateau, requiring the temple to be terraced. It was created in an area already partly covered in buildings, on deep dumps of loose chippings from nearby quarrying. It was freestanding on three sides, but built against the wall of house A1-A adjoining to the W (*PR* 2, 57), and possibly partly rested on existing foundations on the E side. The E wall rests on larger blocks, some squared, apparently contiguous with a stretch of broad (1.55m) wall projecting to its E, the line of the face of which ran along a quarry edge to the towering facade of the Citadel.

The temple's alignment was rotated anticlockwise from the city grid alignment, which does not pertain in the irregular wadi floor area. It is aligned approximately NW-SE, on an axis roughly parallel with the Citadel wall, but for the following description local site N is taken to be on the axis from the door to the rear altar.

On excavation, the building was moderately well preserved. Deposits over the floor ranged from c.0.6m to c.1.2m deep (*PR* 2, 57). The temple comprised a roughly rectangular room with four orthogonal roof piers, plus a substantial porch structure to the S. Construction comprised the usual Durene mortared-rubble substructure with mud-brick superstructure, the whole then plastered.

As mentioned above, in Roman times the site sloped quite steeply from N to S; the bottom of the original house foundation by the rear of the temple is about 2m higher than the lower parts of the rendered walling at the front of the shrine. The temple floor was established between these two levels. Its rear half was terraced into the underlying deposits as much as a metre below the old foundations and the neighbouring W house wall. Its N wall was built in a rather bizarre manner. Instead of cutting the chippings back to the far side of the wall line, and founding the wall at or below temple floor level, the wall was constructed on top of the chippings.

The friable layers of chippings exposed were, it seems, simply held in place with plaster. This precarious construction was given some solidity by an axial niche structure (below) built from floor level, which effectively doubled the thickness of the central part of the wall. Nevertheless, it made for highly unstable foundations on the N and W sides. The two W piers, found fallen to the E, are probably to be explained by collapse of the weakly founded W wall, also displacing the altar.

As the ground dropped away steeply towards the S, the front part of the temple, especially the E side, had to be built up substantially in mortared rubble to establish the desired floor level, c.1.5m above ground surface at the porch. This placed the front of the temple, in effect, on a podium, a deliberate choice and not simply a topographic exigency (see also the Military Zeus Temple).

As the three existing drawings disagreed fundamentally, an accurate plan was a priority of the resurvey. This showed that the building actually exhibited a careful and regular geometry, partly obscured by the apparent irregularity of its poorly preserved W wall. Although formed from a patchwork of reused stretches and new construction, the temple builders had originally given the W wall a straight face, as Pillet thought. But the overall plan of the structure is not orthogonal: it is a symmetrical trapezium (or in US terminology, trapezoid), i.e. the front and rear walls were laid out parallel to each other and symmetrically with regard to the temple's long central axis, but the front wall was longer than the rear, so the side wall lines converged slightly towards the rear of the temple. Further, the cella floor was not horizontal, but sloped upwards c.400mm from front to back (Fig. 7.2). Combined with the converging side walls, this will have given an illusion of greater depth—which apparent sophistication contrasts curiously with the shoddy construction techniques. It was probably inspired by the slight angling between the line of the reused W wall of the plot and the desired temple axis looking down the wadi parallel with the Citadel wall, turning problem to opportunity. It may also be no coincidence that its shape echoes the trapezoidal shape of the reconstructed *campus* which it dominated (pp. 196–199).

The four roof piers were positioned symmetrically, the front pair being slightly further apart than the rear pair. The piers divide the longitudinal space into equal thirds, but create a 'nave' double the width of the lateral 'aisles', emphasizing the central axis. This geometry corresponds to that in room 30 of the Roman Palace. It is likely that the roof was flat, and open to the sky in the centre; a shallow step in the plaster floor revealed running between the two E roof piers in 2009 may have been for containment and drainage of rainwater.

Projecting into the room from the N wall, two 'engaged pilasters probably supported a decorative design, no doubts a niche' (PR 2, 17). In fact the entire wall footing between the pilasters is broadened, forming a base which could

accommodate a niche of semi-circular plan. This would constitute the setting for the lost statue mentioned in the inscription on the small altar which stood just in front of the inferred niche.

When found, the axial altar was already slightly displaced from its original position, clearly marked in the floor plaster (PR 2, 16–17). Its Latin inscription (p. 194), cut and picked out with red paint, crumbled away soon after recording (PR 2, 17).

In the NW corner there was 'a small sort of basin for ablutions, surmounted by a small niche' (PR 2, 17, pl. V); this structure, which was apparently dug below ground level, and faced with plaster (Fig. 7.4, e), had collapsed by 2005.

Fragments of plaster from the columns and walls show the interior was painted with relatively crude floral designs in yellow, black, and green, perhaps in panels surrounded in red (PR 2, 17, 57–8).

In the middle of the S wall, an imposing portal with sockets for double, in-swinging doors gave onto a rectangular porch structure, the corners of which were ruinous on excavation. Pillet's plan shows it as a simple box, but Hopkins's and Detweiler's show more complexity, with a wall crossing the W side of the porch dividing off a small space beneath it. Detweiler shows this space as accessible from the S, implying a small, low chamber in the front of the podium; however, inspection of the area showed the porch substructure wall was actually continuous where Detweiler showed a door. Close inspection of the remains identified traces consistent with original existence of a second, symmetrical cross-wall, which had been robbed—as had the corners of the porch and most of the steps (below).

What did the S facade of the temple look like? A fragment of frieze or cornice was found, decorated with 'scrolls, egg and dart, fretwork and tongue pattern' (PR 2, 57). Hopkins believed this ornament came from the S facade. It is quite small, only c.250mm deep (Fig. 7.5). On the porch footing stood two plastered piers, dividing the frontage into equal thirds, attesting a portico. Detweiler's plan shows four round columns, suggesting that he envisaged this building as distinctly Roman in external appearance, with podium, portico, and pediment. The recently discovered neighbouring 'Citadel Zeus Temple' did have a pitched roof and almost certainly a pediment. However, the two attested porch piers of the Temple of the Roman Archers were not round in plan, but slightly rounded squares, quite roughly plastered. While it apparently possessed a classicizing cornice, the most likely reconstruction of the front of this temple comprised two squarish piers *in antis*, with a flat Durene roof above.

Detweiler's plan also shows a stretch of wall running S from the porch, still extant. Examination of this on the ground in 2008 revealed at its far, lower end remains of a plastered step and riser (Fig. 7.6). This wall marks the W side of a stairway up to the temple podium. The corresponding E wall of this staircase has been entirely removed, but a large

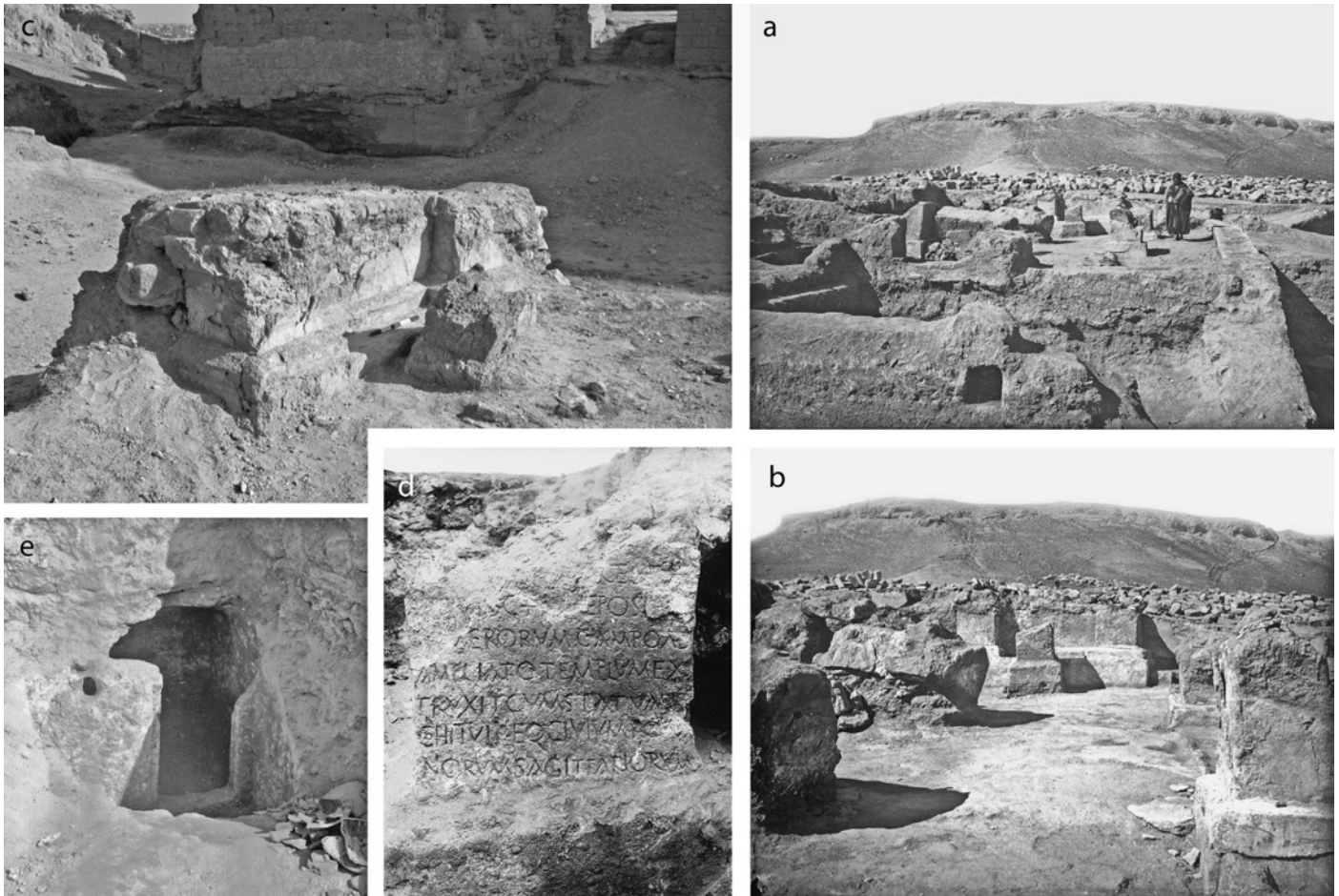


Fig. 7.4. a. The Military Temple looking across the porch from the S. Note large socket below foot of portico pillar, part of stair structure; b. the nave of the temple, showing the roof piers, altar, and statue niche area; c. altar and statue niche structure; d. altar inscription H1; e. 'ablution niche' to L of altar.



Fig. 7.5. Plaster frieze from the Military Temple (Yale no. 1929.374).

squarish hole in the porch wall 'socket' just below the E porch pier may have been for a large block forming the top right corner of the steps (Fig. 7.4, a). Excavation did not continue far enough south to see whether there was an open-air altar in front of the roofed shrine building, as both Roman and Durene practice would suggest.

Viewed from the front, then, the temple looked fairly pretentious, a porticoed building decorated with stuccowork raised above the wadi floor, approachable up a flight of steps, perhaps with an altar in front of it. The E side of the rubble-built podium was faced with scored plaster to imitate ashlar (Fig. 7.7). To the left was a house facing onto the road ascending the wadi. To its right, between the temple and the great Citadel wall, was a quarry face topped by a substantial wall.

When the temple was excavated the N end of the E wall of the shrine room was missing, but its line was apparently found infilled by rough dry-stone walling (Fig. 7.3), of which a keyed and annotated print, apparently prepared by



Fig. 7.6. Stairs to the podium of the Military Temple. Bottom L, below scale, remains of plastered stair tread revealed in cleaning in 2008.



Fig. 7.7. The E side of the Military Temple podium, showing the slope of the floor and superstructure, and plaster rendering scored to imitate ashlar.

Hopkins, survives in the archive and pinpoints the ‘gross’ dry-stone patching of the wall. This ‘repair’ may well be post-siege ‘squatter’ activity, but the gap it filled may indicate a phase of substantial modification of the building, with a door being knocked through the E wall for access to the lane behind, and to the Citadel. What seems to be a secondary wall between the surviving W porch pier and the temple door may indicate reuse as something other than a shrine, while most of the front stairs, the SE corner of the porch, and one of its inner cross-walls seem to have been deliberately removed for building materials before the area was engulfed with hill-wash.

The Altar Inscription

The inscription on the altar, H.1, was clear when found but rapidly disintegrated (Fig. 7.4, d: PR 2, 83–6, and fig. 1). It read:

]ces[
(centurio) leg(ionis) II]II Scyt(hicae) [prae]positus
[nu]merorum campo ad-
ampliatio templum ex-
truxit cum statua pe[r]
coh(ortem) II Ulp(iam) eq(uitatam) civium Romanorum
sagittariorum.

Set up by a centurion (name lost) of *legio IV Scythica* acting as *praepositus* of multiple contingents in the city, the altar records that one of these, *cohors II Ulpia*, built the temple ‘with statue’ of an unnamed deity or perhaps emperor when the ‘*campus*’ was enlarged (*adampliatio*).

The inscription unambiguously ascribes the temple’s construction to the Roman garrison, but specifies no date. The likely context is the wider base building programme of the 210s (pp. 242–245).

Discussion

The temple’s tutelary deity remains unidentified. Little specific evidence of cult practice was recorded, except for the ‘ablution area’ W of the altar. This recalls the basin/pot set beside the altar in the Mithraeum, also thought to be for ritual ablutions (PR 7/8, fig. 31), a practice likewise hinted at in the facilities around the entry to the ‘Dolicheneum’. However, the temple’s architecture, and especially its setting, reveal much about its purpose and significance.

While built in Durene materials and techniques, this sanctuary, whether or not it had a pediment, clearly looked unlike most other Durene temples. It did not face E, and was not surrounded by a walled precinct. On the contrary, it was in effect raised on a podium and accessed by frontal steps, Italianate features. Its Roman military dedication emphasizes its intrusive nature, and its location is also ‘un-Durene’ in that it is a building with a long approach vista: the military *campus*. Its wider setting is discussed further below.

The altar which may reasonably be inferred in front of it is a plausible site for the military sacrifices listed in the *feriale Duranum*.

THE MILITARY ZEUS TEMPLE (‘CITADEL ZEUS TEMPLE’), A1

Discovery and Excavation

During the 2011 season, in which I did not participate, excavation of a trench begun in 2010 along the face of the Citadel was continued by O. Hausard and Y. Al Hassan. This, c.25 × 2m in area, was preparatory to conservation work designed to prevent collapse of the remaining full-height section of Citadel wall. In the course of this work part of a small building was revealed, which had backed against the vertically quarried stone face forming the foundation of the masonry wall above (Leriche and Al Saleh 2011, 7, figs 12, 15–20; Leriche et al. 2011, 18, 35, figs 1–6; Leriche 2016, 173–6, 182, and pl. 12.5). It is demarked by two plastered walls, of entirely mud-brick construction, built out perpendicularly from the rock-cut face of the Citadel, respectively 47m and 53.5m S of the Citadel’s corner tower. The lines of the walls correspond to the position of a series of beam holes in the quarried stone face (Figs 7.8 and 7.16, a). These holes, indicating (exceptionally for Dura) a pitched roof, have always been apparent but never previously discussed, probably because presumed recent.

Although the trench was widened somewhat, only the back part of the building was explored. Its internal width is 4.3m, but its length remains unknown, as a fallen wall obscured the W part (Leriche 2016, 175). However, had it been very long, its floor level would imply a substantial podium which should still have been visible as a projecting feature in the sloping ground. However, the pitched roof implies a classicizing pedimented facade.

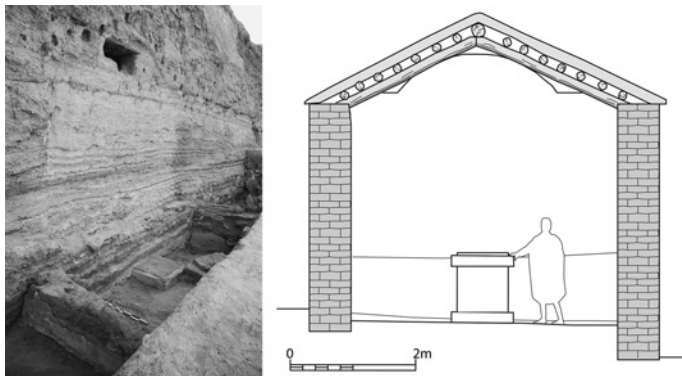


Fig. 7.8. The rear part of the small Military Zeus Temple excavated in 2011.

The *djuss* base of an axial altar was found *in situ* against the Citadel wall, with ‘numerous fragments’ of wall paintings lying on the floor between the altar and the S wall of the building (Leriche and Al Saleh 2011, 7: below). ‘Curiously, the upper part of the altar above the *djuss* foundation had been systematically destroyed and scattered. This suggests that this religious building had been deconsecrated for a reason yet to be determined’ (Leriche and Al Saleh 2011, 7, trans SJ). Following this, but apparently much later (‘*apparentement beaucoup plus tard*’), ‘a block of masonry from the Citadel fell on the building, through the roof and damaging the SW corner of the altar base, while other blocks fell S of the temple, damaging the S wall of the building’ (Leriche and Al Saleh 2011, 7, trans SJ). Substantial quantities of fallen wall plaster were recovered from the floor, including fragments of one or more polychrome wall paintings judged to be ‘evidently from the last period of the city. This is confirmed by the associated pottery and by the presence of two lamps datable to the first half of the third century’ (Leriche and Al Saleh 2011, 7). The building, then, belongs to the Roman period.

It was evidently a temple, small by Durene standards, and exceptionally constructed entirely of mud brick with no masonry foundation, although the pitched roof and fragments of a false vault attest an effort at some visual pretension. Preliminary inspection of the fallen plaster revealed fragments of figural scenes, and three *dipinti* painted in red which preserve the name Zeus, taken to be the tutelary deity of the temple. To distinguish it from the several other known temples to Zeus at Dura, the new building has been labelled the ‘*temple de Zeus de la Citadelle*’ by the excavators. However, this name is somewhat misleading, as the temple was not inside the Citadel but stood on the military *campus* below it. As it appears to have been built by the Roman garrison and was certainly used by them, at least until any more specific dedication is established, it is more appropriate to call it the Military Zeus Temple.

The structure was entirely reburied at the end of the 2011 season to protect it from vandalism. Further exploration was planned, but civil war prevented.

The Paintings

Leriche and Saleh described the painting fragments as showing ‘a religious scene with numerous persons dressed in Roman style, facing the viewer, one hand raised, palm showing’. Some raise their right hands, while others, interestingly, raise the left (Fig. 16.2; Leriche and Al Saleh 2011, 1 and fig. 17; Leriche 2016, 175 and pl. 12.5). ‘Three bands of colour highlighted the junction between wall and ceiling... It is too early to speak of the significance of the paintings which fill 28 half-metre-square trays. The paintings, directly onto *djousse*, are very fragile... These paintings are the work of a talented artist, using varied colours, with a good sense of

facial expression, and a very good standard of letter design. In style, these paintings are among the most westernized from the site' (Leriche and Al Saleh 2011, 7, trans. SJ).

Preliminary Discussion

The temple was built on what is today a strip of sloping ground against the Citadel wall footing at the edge of the roughly flat wadi floor. Part of this slope comprises debris subsequently fallen from the Citadel, but it seems clear that the excavated floor of the new shrine was some height above the ground level to the W, and that its unexcavated W end, at least, was likely constructed as a raised podium with frontal steps, like the nearby Temple of the Roman Archers. The new shrine, especially with its pitched roof attested by the beam holes in the Citadel wall, will have had a distinctly Italic look, with a pedimented facade, likely with columns. A sloping roof implies ceramic tiles or stone slates, but no roofing material was reported. Had this been removed before Citadel wall stones fell on it? It perhaps also had an altar at the foot of its steps. Evidence for the suggested interior false vault was not specified, but this was presumably indicated by curved plaster fragments.

Albeit built in local materials, this was, then, a very Roman-looking structure. More specifically, although investigation of the newly found temple is very incomplete, the location, construction, layout, and decoration of this building all point to its being an entirely military construction, built in a Roman military space.

Not only was the temple Italianate in form, making it alien and intrusive at Dura, the fragments of wall painting illustrated show figures in Roman military attire. They depict soldiers, in one or more compositions clearly similar in conception to the Terentius painting from the Temple of Bêl. Like Terentius, they probably record collective military sacrifices, presumably conducted on the space in front of the building, and likely commemorated specific ceremonies.

Further, the new shrine stood c.40m E of the considerably larger Temple of the Roman Archers, both structures facing out onto a large open area. Except where it could not 'see' as a result of fallen debris along the Citadel wall, magnetometry indicated no buildings had stood in the area between the Citadel wall and the wadi-bottom road leading towards the rise to the H/8th St junction. This area is almost certainly the military *campus* or exercise ground mentioned as being extended in the Temple of the Roman Archers inscription.

Orientation

The position and especially the orientation of the temple are curious. Most Durene temples, including the Roman military

Mithraeum and the 10th St shrine, are roughly oriented, i.e. their shrine doors open E (N of true E due to the angling of the city grid). Some (the *aedes* of the *principia*, the 'Dolicheneum', and the Temple of the Roman Archers) face S. This new temple faces closer to W (according to the city grid; nearer true SW). Why was this temple so anomalous? Why not build it on the other side of the *campus*, facing generally E in the conventional manner? One hypothesis worthy of consideration is that it was constructed in relation to the disposition of worshippers outside it, who had to be facing E during rites. Tacitus records that, as early as AD 69, at dawn Syria legionaries greeted the rising sun (*Hist.* 3.24). During the third century, sun cult was increasingly important, leading to imperial promotion of *Sol Invictus*. The new temple was dedicated to an aspect of Zeus: could it have been Zeus Helios? Inscription 974 in the X7 temple was to Zeus Helios Mithras (*PR* 9.3, 102, 115–17). One obvious objection to a solar explanation for the temple positioning is that the vast looming bulk of the Citadel wall prevented the faithful gathered for any hypothetical dawn 'church-parade' from observing the sunrise. However, the Citadel provided the newly found shrine with the most dramatic abutting 'high place' of any temple in the city: others had to make do with wall-towers to serve this function which echoed ziggurats and prefigured minarets. The moment of sunrise could have been proclaimed or literally trumpeted from the wall top.

THE MILITARY CAMPUS, A1–A2

Discovery and Investigation

Inscription H1 on the altar in the Temple of the Roman Archers recorded the building and dedication of that shrine by soldiers of the garrison on the occasion of the expansion (*adampliato*) of a *campus*. Besides its general meaning of 'field', in a military context *campus* translates best as 'training ground' (Davies, R. W. 1969; 1974).

The word is etymologically related to the modern 'military camp', which since its introduction into English in the sixteenth century (*OED*: 'camp'), has come to mean both temporary halting site on campaign and permanent military installation. 'Camp' has been used in this sense in relation to the Roman garrison station at Dura (c.f. the mud-brick 'camp wall'). The term 'campus' was also applied by Gilliam to describe the entire Dura base area including the Roman Palace (*PR* 9.3, 95–6), a possibility also entertained by Welles (1951, 258). However, neither provided evidence for this usage in Roman times, which confuses the modern military 'camp' with both ancient and modern usages of 'campus'. The last, meaning the territory of buildings and spaces of a university, is an American coinage traceable to Princeton in the 1770s (*OED*: 'campus'). In the context of Dura, applying the term in this wholly modern sense of an area full of

buildings is anachronistic and confusing. Here the term in inscription H1 is taken to refer to a training/parade ground, as its discoverers believed (*PR* 2, 17, 84–5). But where was it, and what was its extent?

Hopkins concluded that: ‘Apparently the temple stood on part of the campus’ (*PR* 2, 84–5), implied to be the area in front of the temple. Pillet thought that this was ‘probably the space defined by great walls parallel to the western face of the Citadel... this long hollow... could in fact furnish the garrison with a sufficiently large and well-protected drill ground’ (*PR* 2, 17), views shared by Hopkins (*PR* 2, 85). However, exactly how much of the suitably flat wadi floor it took up in either its original or extended form was not determined (Pl. XXI and Figs 7.9, 7.10, 7.11).

New research is entirely consistent with this interpretation, not least discovery of a second Roman military temple in 2011, with fragmentary paintings of soldiers conducting sacrifices, also facing onto the area (the Military Zeus Temple). Archaeological evidence also indicates that in the city’s final decades the inner wadi floor was in military hands, probably right down to Lower Main St (pp. 211–212). It seems probable

that the soldiers controlled everything E of the road leading up the wadi to the H/8th St intersection (today roughly corresponding to the line of the Ottoman road).

Although the sloping piles of debris fallen from the Citadel prevented examination of the strip immediately beneath its wall, recent geophysical results (Fig. 7.9, b) further corroborate and expand the picture. Magnetometry survey of the wadi floor in 2008 plotted clear outlines of a block of buildings in the shadow of the southern part of the Citadel, but the plot for the c.25m-wide strip running approximately 160m from the front of the A1 Temple of the Roman Archers is notably clear of anomalies. It shows no signs of structures ever having stood in the area, except perhaps at its N end where excavated walls indicate a couple of structures backing onto the Citadel defences (the ‘Military Zeus Temple’ and another building on its N side). Indeed, for c.75m immediately in front of the A1 Temple of the Roman Archers, the anomaly-free area is c.50m wide. Beyond that, on the east side of the modern run-off gully bisecting the wadi floor, roughly opposite the Citadel Palace, there is a zone of anomalies consistent with building foundations, but relatively



Fig. 7.9. Inner wadi zone showing the Ottoman road at L, the Citadel at R, and military *campus*: a. 1930s air photo, still showing the 1920 horse lines (Fig. 1.7); b. same with magnetometry results superimposed; c. detail of 2009 satellite imagery (DigitalGlobe, Inc.). The last shows recent machine tracks also picked up by the magnetometry; there was no road up the middle of the ancient *campus*.

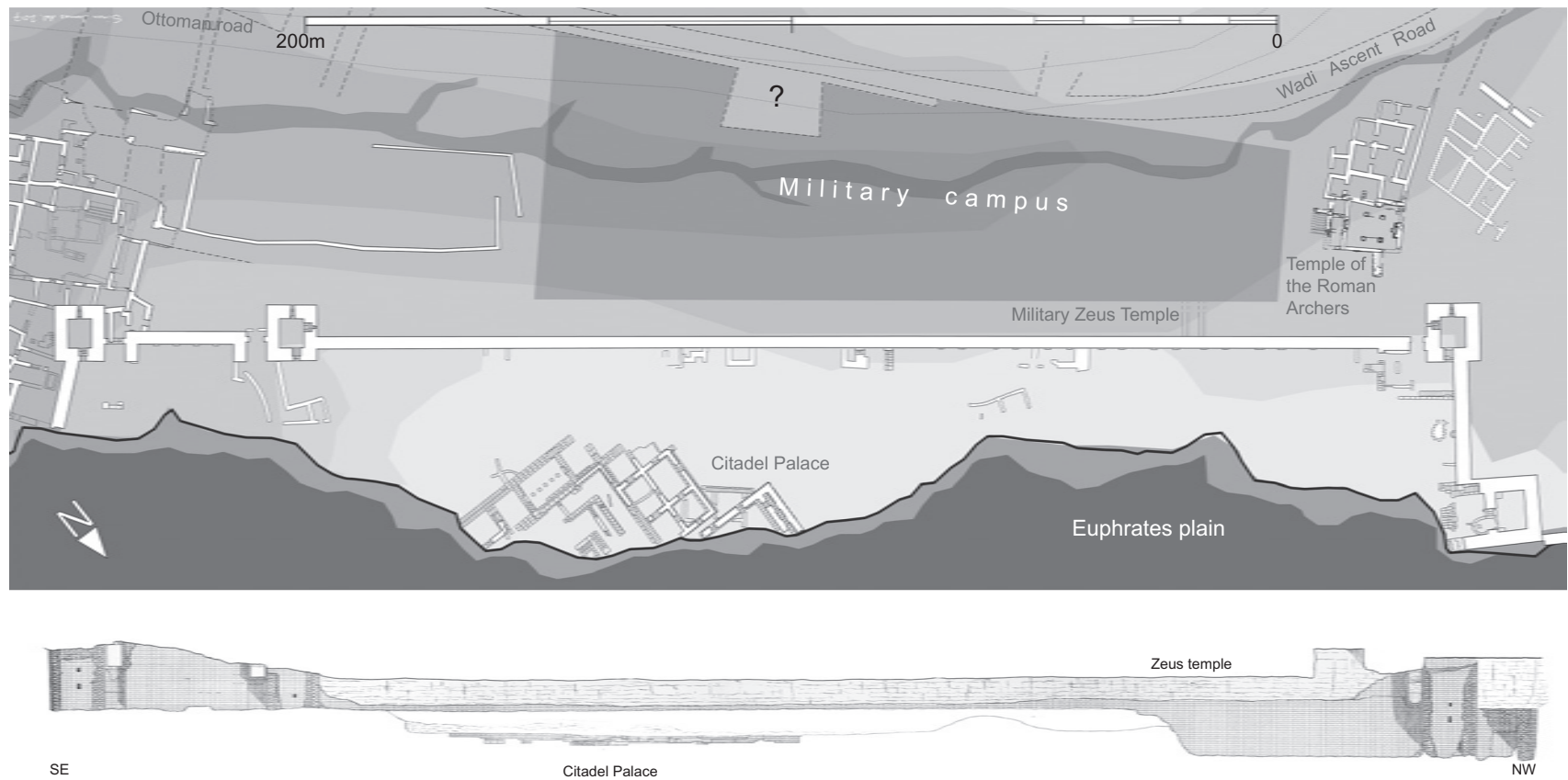


Fig. 7.10. Plan of the reconstructed extent of the *campus* with its known temples, and the Citadel, with archive drawing of elevation of the latter.

weak and ill defined by comparison with much clearer structures to the S and W. These likely represent truncated foundations of structures which, unlike surrounding buildings, had undergone systematic demolition during the life of the town. It is suggested that this evidence is consistent with the two phases of the documented military *campus*, which initially comprised an area of $c.50 \times 75\text{m}$ immediately in front of the site of the A1 Temple of the Roman Archers, probably with an additional 25m-wide strip extending along the wall of the Citadel; and that subsequently this was extended through demolition of neighbouring structures to create a roughly rectangular space $c.160 \times c.40\text{--}5\text{m}$ wide, totalling $c.7,000\text{m}^2$, or almost two acres. This was the expanded *campus* commemorated in the construction and dedication of the A1 Temple of the Roman Archers, which was roughly axial to the enlarged space. (The plaza in front of the Temple of Bêl could also have served as a second, smaller *campus*.)

The expansion of the *campus* and building of the Temple of the Roman Archers remains without precise date. The most plausible context would be as part of the Late Severan/Caracallan construction programme.

The Campus in the Townscape

At least in its initial form, establishment of the Roman *campus* may have marked a change of ownership rather than of use of this area of the city interior. Much had apparently always been open ground, shady in the early morning, perhaps set aside for military training since Hellenistic times.

The purpose of extending the *campus* was perhaps to create a larger usable area suitable for routine drill of a Roman garrison which, including legionaries from $c.210$, had an increased proportion of foot soldiers. It could have accommodated infantry training and weapons drill, perhaps up to the scale of centurial evolutions; however, it was not large enough to practice movements of larger formations. Cavalry needed much more space to train, and on soft, prepared ground (Arrian, *Ars tactica* 34.1), potentially available on the river plain (cavalry apparently on a route-march exercise, *ambulatio*, are mentioned in *P. Dura* 100 and 101: Davies, R. W. 1969, 89–91).

However, the *campus* enlargement also created a grand theatrical space, flanked by the great Citadel wall to the E, and rising tiers of buildings on the wadi sides to W and N, a roughly symmetrical arrangement around the axial focus of the Temple of the Roman Archers. This was supplemented by the nearby, newly discovered 'Military Zeus Temple', and perhaps by other religious and ceremonial structures—altars, statuary, perhaps a further sanctuary, (below)—around the perimeter. The site was well suited to ceremonial military assemblies, for sacrifices on festivals and other special occasions such as imperial oath-taking, and pay-day musters. It was large enough to assemble all the soldiers in the city. The

elevated portico of the Temple of the Roman Archers could have served as a tribunal, although another possible site for a dedicated structure or possible third temple has been identified by magnetic anomalies on the W side of the ground (Fig. 7.10, marked '?'). On windless days, large assemblies could have been addressed from the Citadel wall. It is easy to imagine the shouted acclamations of the assembled soldiers re-echoing from the surrounding walls and hillsides.

THE CITADEL

Exploration, Recording, and Publication

The Citadel comprises an isolated fragment of plateau defined by massive later Hellenistic ashlar walls rising above vertical faces carved in the living rock. It had three gates in its long W side, all giving onto the floor of the inner wadi: one next to the NW tower, the others quite close to each other between the towers at its S end—a curious arrangement. Surviving fragments of a Hellenistic Palace and its Parthian-era successor within the Citadel indicate that its area has been significantly reduced by cliff-falls into the Euphrates. Nevertheless, the remaining structure still dominates the central wadi (Figs 7.10–7.14).

The Citadel has not hitherto been regarded as part of the military base. The chronology of the (probably serial) cliff collapses is unknown, but it has generally been thought that by Roman times they had already rendered the Citadel Palace site uninhabitable. Given the inconvenient, steeply sloping internal topography of the surviving portion (Fig. 7.15), it may be thought to have had more of symbolic than practical day-to-day value for the Roman garrison, at least until the rise of the Sasanians restored its tactical importance as an elevated fortification offering 'covering fire' for the River Gate (stone projectiles were found inside, indicating that during the final siege it was equipped with artillery: *PR* 2, 14–15, 55). However, its northern gate opened into what is now seen as a military enclosure between the A1 Temple of the Roman Archers and the N edge of the inner wadi; the ground beneath its long wall comprised the military *campus*; and there is also evidence that the garrison controlled extensive buildings around its southern end (pp. 206–209). Further, unpublished archival information relating to finds, and especially structural traces both inside and outside around the S doors comprising irregular walling and lines of secondary joist holes, are consistent with significant military occupation similar to that in J7. The Citadel and its environs look, therefore, to have been part of the base area.

It has been extensively studied, by Cumont (1926, 16–24) and by Yale. In addition to work conducted under Pillet in the early seasons (*PR* 1, 24–9; *PR* 2, 12–15, 53–7), finds registers indicate further exploration during the fifth to eighth and tenth seasons. Little of this was even mentioned



Fig. 7.11. The Citadel, with the wadi-floor *campus* zone (L), and block B2 (R). The C3 bath, with the Ottoman road running through it, is in the R foreground.

in the publications, although Brown is recorded as having excavated the area inside the S doors during the sixth season (*PR* 6, 2). In recent decades the defences and internal buildings of the Citadel have also been closely studied by MFSED, as the Hellenistic defences comprised a major research objective (Leriche 2010, 31–3). Added urgency was given by realization that the tall surviving N part of the long E wall was in danger of collapse, leading to prompt remedial efforts overseen by MFSED in 2009–11 (Leriche et al. 2011, 14).

Work for the present study on the evidence of late military occupation has been mainly photographic on site, and archival. Yale preserves a range of photographs of excavation in and around the Citadel, and unpublished drawings. Some details probably relating to the Roman military phase appear on archive plan Dura Citadel N.1, while Detweiler's preparatory plans for his city map also record relevant information.

Some of the supplementary joist-hole sequences were also recorded on archive drawings (Figs 7.10 top, and 7.16). The new plan (Fig. 7.10, bottom) is derived from these archival sources, supplemented with new observations and photography, projected onto modern MFSED TS data for the accurate position and shape of the monument.

Discussion

The existing structure is now understood to be the second on the site. Originally a castle-like fortification formed the initial core of the Macedonian military garrison colony, or *phourion*. This early Hellenistic stronghold occupied what was then a peninsula of plateau between river and inner wadi. The slope preserved in the surviving natural rock exposed in section at the N end of the later Citadel indicates that this peninsula was

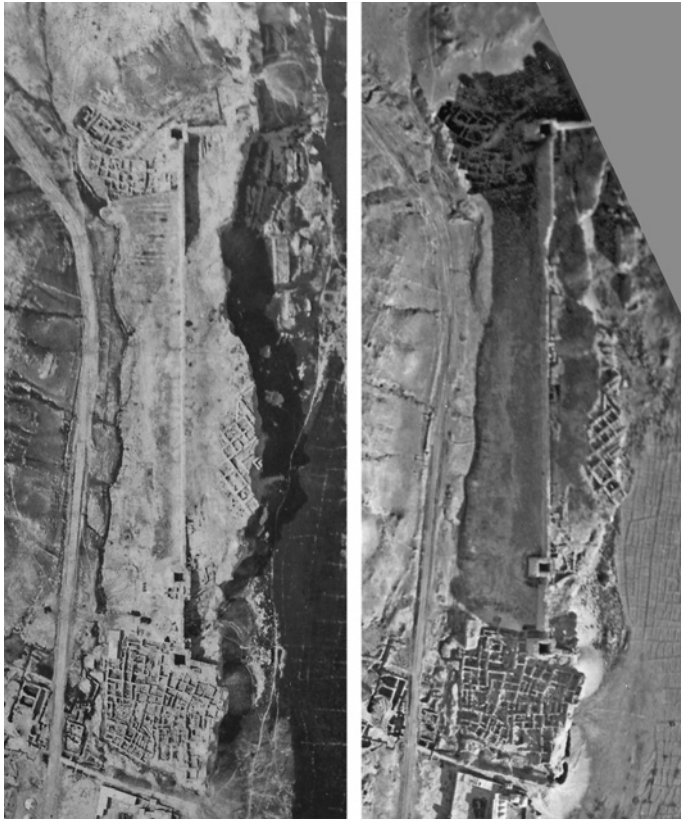


Fig. 7.12. The Citadel, details of (L) vertical air photo of 1936, and (R) an undated but slightly later one.

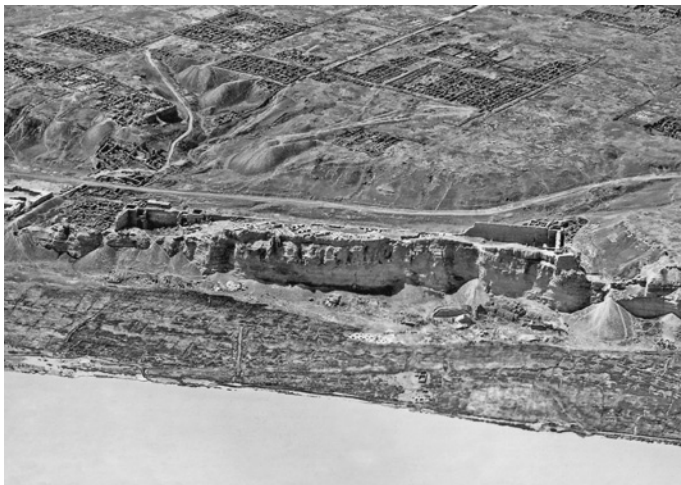


Fig. 7.13. Detail of oblique air photo showing the Citadel and inner wadi from the river side.

already becoming isolated through natural erosion, creating a natural hollow between the early stronghold and the plateau. However, it appears that this dip was still shallow enough for the newly identified original main approach road, later reduced

to a curving extension of 10th St, to have crossed it to an original main gate located at its NW end.

As the surrounding settlement grew and expanded onto the plateau, the fortress became the Citadel of an evolving *polis*.

Subsequently, apparently as part of the wholesale reorganization of Dura in late Hellenistic times involving creation of the Hippodamian grid and the new defensive circuit on the plateau, a new and radically different inner stronghold was created, partly on the site of the first. A profound change was the cutting of a great quarry across the root of the spur, providing building stone for its walls while also fully isolating the inner fortress with what was in effect a huge ditch. Bessac estimated that this was part of wider Hellenistic quarrying activities inside the city involving excavation of c.220,000 cubic metres of material (Bessac 2004, 247)—about half a million tonnes.

To compensate for the loss of intramural area resulting from the cutting of the quarry (and perhaps from successive river-cliff falls) the defensive perimeter of the Citadel was also extended to include some lower ground to the S. A palatial residence was constructed on the fragment of plateau remaining within the new Citadel. Later, under Parthian rule, this was replaced by another grand building on a different alignment. The fragmentary remains of these successive residences show that the area of the Citadel has been significantly reduced by cliff-falls. In an unpublished archived report, Brown hypothesized that the second, Parthian-era Citadel Palace had partially collapsed into the Euphrates in the first century BC (Matheson 1992, 123), although Downey suggests most fell in the 160 earthquake (Downey 1986, 27). Rostovtzeff followed Brown's dating, arguing that architectural fragments found reused elsewhere in the city in the first century BC and first century AD came from salvage work in the already-ruined Palace. He concluded that in later Parthian times the Citadel was ruinous. He ascribed '*pauvres huttes*' found within it (presumably e.g. the buildings dug by Brown in the S part of the Citadel in the sixth season), and also a kiln (neg. K392), dated to the first century BC, after which he thought the interior had been used as a cemetery for the urban poor (Rostovtzeff 1937, 198). A small number of graves were found within it in the second season, including a body from inside the NW tower with a noose round its neck (Fig. 14.1); Hopkins thought these were very early or pre-Roman (PR 2, 13, 56–7). Twelve more graves were dug in the tenth season, and dated to the first century AD based on textiles and shoes (PR 9.2, 6–7; Matheson 1992, 125–6).

Neither Rostovtzeff nor his fellow excavators had much to say about the use of the Citadel in Roman times, although even if part-ruinous it evidently continued to have military uses at least as part of the defensive perimeter, while its massive surviving walls still dominated the heart of the city. The Roman period is considered in detail below.



Fig. 7.14. The Citadel dominating the central wadi and *campus*.



Fig. 7.15. View of the Citadel interior from the N, showing the steep internal slope, and fragment of plateau with ruins of the Citadel Palace.

Today, while approximately a quarter of the Citadel's city-side perimeter is preserved to a great height which still overtops the adjacent plateau, the central and southern parts of the defences facing the inner wadi survive only to a lower, markedly and, I believe, significantly uniform level, completely exposing the upstanding rock on which the Citadel Palace lay (Fig. 7.11). Obviously the ashlar construction of the central and S parts of the enceinte originally stood higher. However, it is implausible that the defences originally stood to the height exhibited at the N end all the way to the SE walls and towers. In the NW, very high walls were necessary because of proximity of the upper plateau. Equally enormous walls facing the lower town would be a huge and militarily unnecessary extravagance. Rather, the central and southern parts of the defences only ever stood a few metres higher than they did in 2010, consistent with the quantity of fallen blocks

exposed at the foot of the tower flanking the 'middle gate'. This would still have constituted a formidable military defence while permitting the Citadel Palace to be seen from much of the town, and especially ensuring its intervisibility with the other pole on the city's axis of power, the *Strategion* (pp. 50–51).

The central stretch of wall has disappeared all the way down almost to bedrock level, below which the wall line was quarried from the living rock. It is noteworthy that the ashlar-constructed S part of the Citadel also only survives to the same height (Figs 7.10 to 7.12). It is implausible that this is the result of natural agencies such as an earthquake, which would inflict more irregular damage. It looks much more like a systematic programme of slighting to make the defences unviable. The entire central part of the Citadel was left exposed to bedrock, making it vulnerable to any potential attacker. It is most plausible that this was an action conducted by the Sasanians after the final siege.

The history of the Citadel, not least its Roman phase, was also partially obscured by episodes of reoccupation after the final siege. It was subsequently home to at least one Christian hermit, the Stylite Benjamin (Cumont 1926, lxviii), and later for a period accommodated an Arab village (Leriche et al. 2011, 22), upstanding dry-stone walls of which survived at excavation (Fig. 7.18, top L). This episodic reuse likely accounts for some of the demolition and disturbance observable within.

THE CITADEL IN ROMAN TIMES: MORE MILITARY HOUSING

Despite the steep and awkward topography of the Citadel interior, there are indications that Roman military occupation was much more substantial than just guard details. Most notably, the interior faces of its upstanding walls preserve rows of holes intended to take the ends of beams for floors or

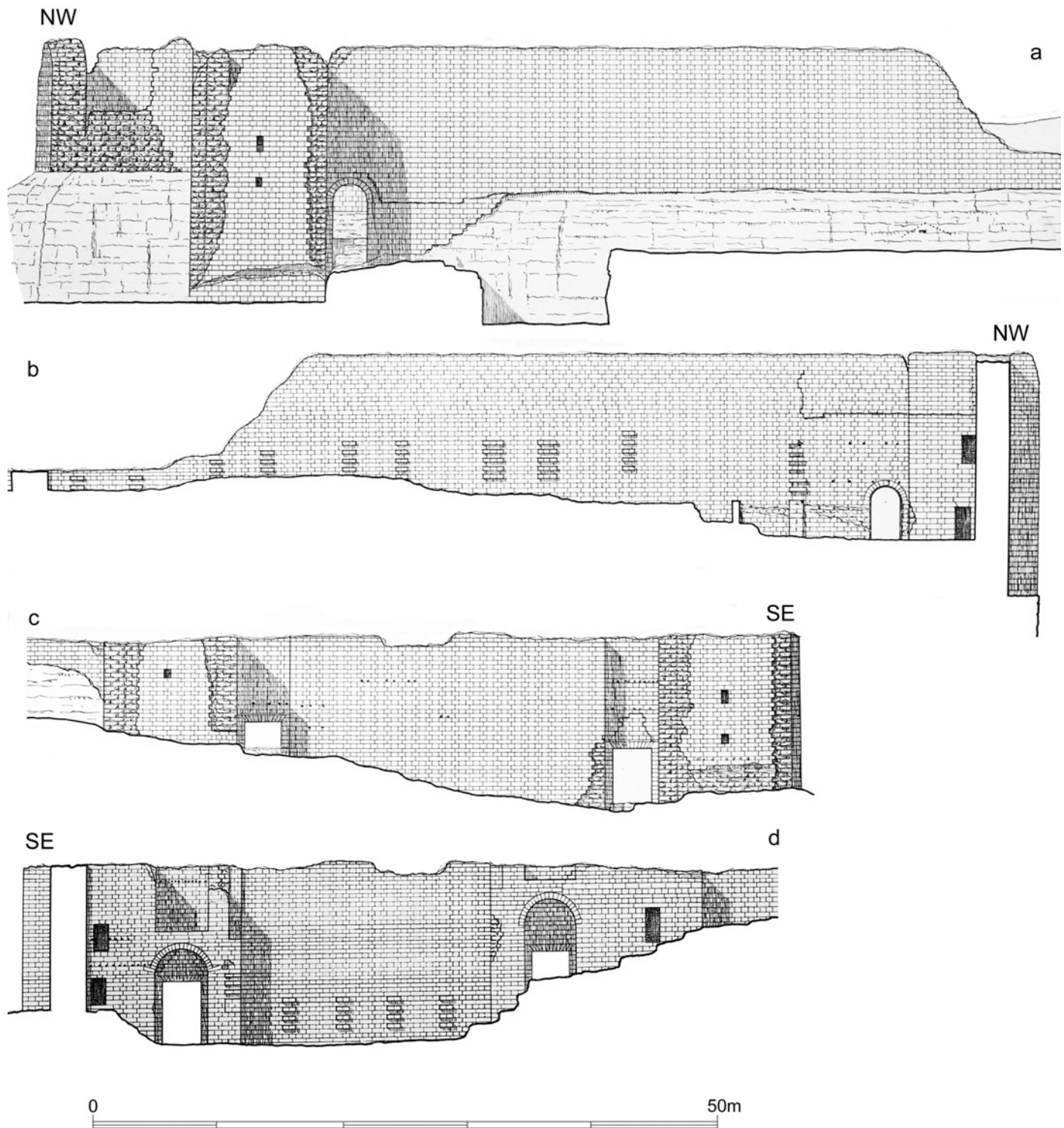


Fig. 7.16. Details of external and internal elevations of the N and S ends of the Citadel superstructure, showing sequences of beam holes attesting the pitched roof of a military temple (a., right) and upper floors and flat roofs of probable soldiers' accommodation inside and out. (Details from archive drawings, with the addition of the Military Zeus Temple beam holes to a.)



Fig. 7.17. Interior of the N end of the Citadel: L, top of picture, foundations and wall-keying of demolished Hellenistic interior structures inside N gate. Centre, N gate with later beam holes above it, and cut into the base of its vault. R, inside the NW tower, showing lower, built-in joist sockets, and upper beam holes later cut into the walls.

roofing of lean-to buildings, clearly distinguishable from the original Hellenistic structures. There were also in places secondary irregular walls which, with the artefacts recovered, indicate that the Citadel interior was used for yet more Roman military housing.

Within both its N and S ends, 'keying' in the fabric of the Citadel walls indicates the former, or at least planned, position of orthogonal ashlar-built internal structures integral to the later Hellenistic reconstruction of the defences (Fig. 7.16, b and d). These structures had gone by Roman times (Figs 7.17, L and 7.18, b), and the massive joists supporting floors inside the towers had apparently also been removed, probably in the later Parthian era along with despoiling of the ruined Citadel Palace for its materials. However, the inner faces of the walls surviving at each end of the Citadel also preserve secondary patterns of beam sockets representing lean-to buildings (Fig. 7.16, b and d). Secondary beam-hole series also attest new floors constructed within the towers facing the inner wadi and over the gates, suggesting multi-storey occupation (Figs 7.17, R and 7.18, c and d).

Beam-hole series are especially clear in the S interior, where a number of sequences demonstrably cannot belong to the Hellenistic architectural conception as they are aligned halfway up doorways (Figs 7.16 and 7.18, c and d). These sequences represent small units built at different levels on the steeply sloping ground, at least one of which was two storeys.

Other two-storey structures are implied by beam holes above all three gates, turning their vaults into upper rooms (Figs 7.17, centre, and 7.18, d). The 'middle' gate had been reduced in width, and the closed-off half infilled with a three-storey structure. Subsequently this entrance was closed and walled up (Fig. 7.19).

The area inside the 'middle' gate was excavated by Frank Brown during the sixth season, where he revealed a number of buildings with irregular walls, some preserved to a metre or two in height, terraced into the steep slope at about the level of the gate (Fig. 7.20). These had been deeply buried and were clearly ancient. Apart from a few photographs, no plan or other records of Brown's excavations are known to exist; in particular no artefacts may be confidently ascribed to them. However, it is proposed that Brown's walls and the series of beam holes all represent a single broad period of construction (Fig. 7.20). A small excavation behind the Citadel wall below the Palace revealed another irregular structure similar to those which Brown excavated to the S, as well as post-Hellenistic walls aligned on the Citadel defences (centre of Fig. 7.10) plan. Such buildings may, then, have been constructed along and against the entire interior length of the great defensive wall.

Brown's buildings in the S interior of the Citadel are undated, although these are very likely the '*pauvres buttes*' which Rostovtzeff believed were later Parthian (above, p. 201). It is argued instead that these formed part of a larger building programme also involving erection of

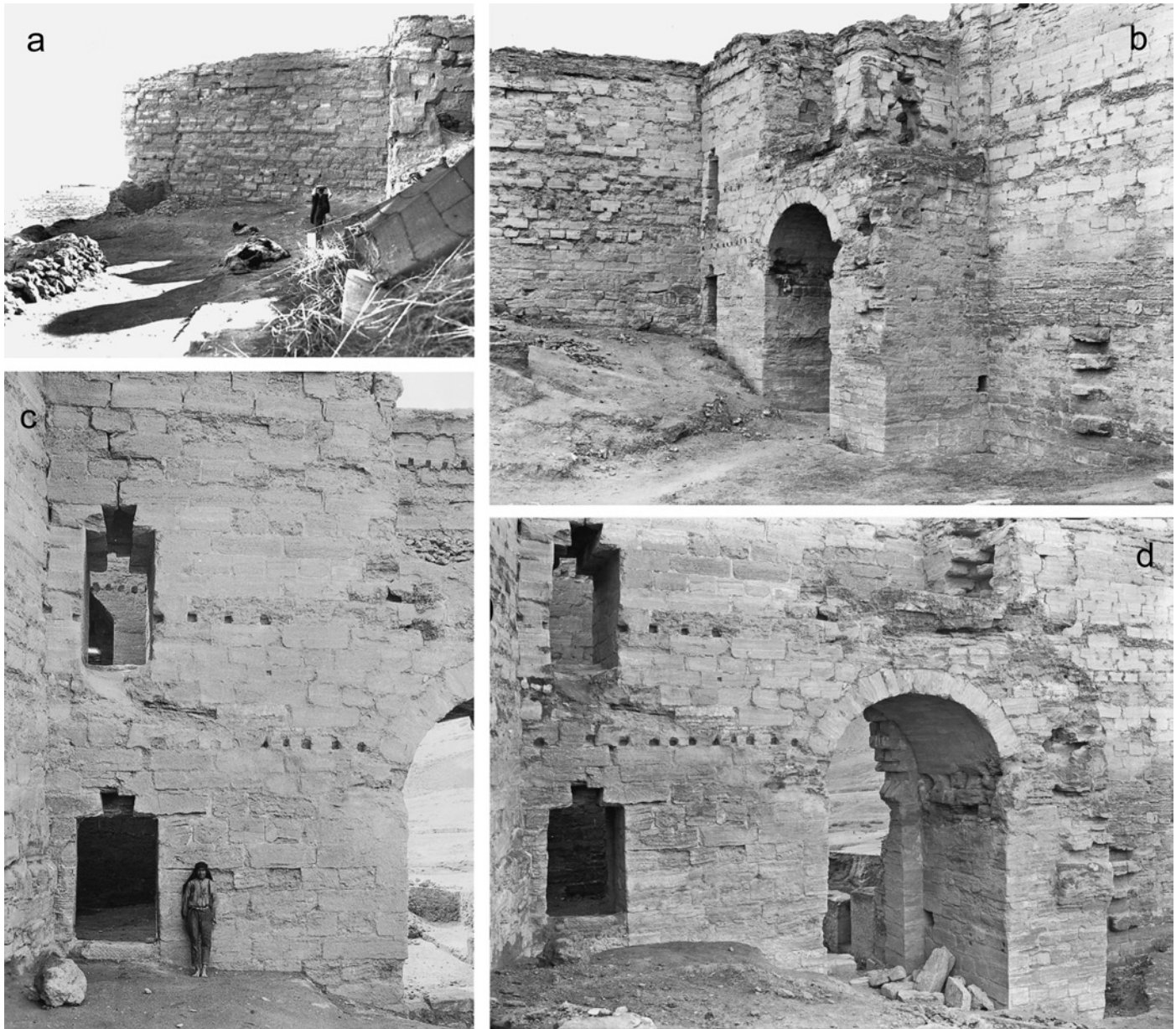


Fig. 7.18. The Citadel interior at its SW end. Top L, pre-excavation, showing abandoned Arab dry-stone village buildings on the extant ground surface, and two beam-socket series in the end wall, one now hanging over the cliff. Top R, the end wall and the S corner tower and gate with more beam holes. Bottom L, beam-hole series visible inside the tower, and apparently representing a two-storey structure built against its exterior, not respecting its upper door. Note also the holes high above the gate, suggesting a structure up to three storeys high. Bottom R, more beam holes suggesting a floor turning the gate vault into an upper room.

similar buildings outside the S and middle gates of the Citadel (pp. 206–209), and that the combination of rough walling, irregular layout and series of beams anchored into defensive walls closely resembles the military accommodation excavated in block J7. These structures within and adjacent to the Citadel are therefore best interpreted as Roman military

constructions, much or all of them probably further accommodation for soldiers.

With regard to those inside, while the meagre recorded artefacts cannot be directly related to them, what we have includes both Roman-era domestic and specifically military objects, and so far as they go are consistent with not just the

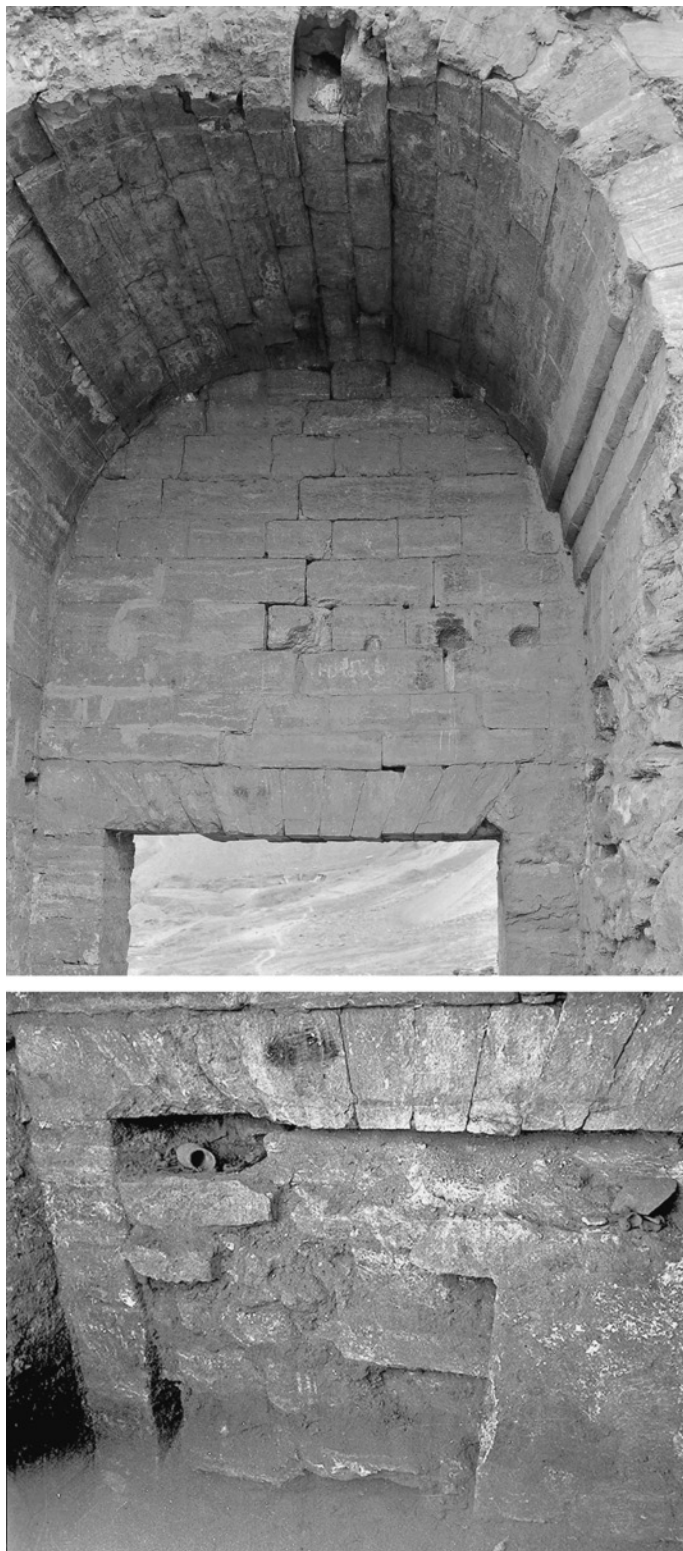


Fig. 7.19. Interior of the middle gate, showing beam holes in its tympanum (top) corresponding with the narrowing of its portal (below). The narrowed door was itself later infilled. (The pipe at the top was a relic of the use of the gate vault by the Yale expedition, apparently as an ablution room.)

presence of soldiers, but the residences of military families. Besides the Roman-style artillery projectiles (p. 199), a military baldric fastener was recovered (1938.3426, missed in *FR* 7). Hopkins also noted discovery of ‘loom-weights... Pottery, toilet instruments, and small ornaments, rings, etc.’ (*PR* 2, 55–6). No details were provided except for one silver earring (*PR* 2, 82, pl. XLV.5), and the ‘loom weights’ which Hopkins described and compared to objects from Olynthos (*PR* 2, 55). Archive photo B303 appears to show these. Only seven items from the Citadel designated ‘loom weights’ survive at Yale (1929.365), of which just two clearly are loom weights of pyramidal form, of the same type as those recovered from the Temple of Atargatis (neg. K515), the other five roughly biconical items more probably being spindle-whorls. The Citadel finds, then, probably do indicate domestic production during the Roman period.

Another find from the Citadel of particular interest is a fragment of a terracotta plaque preserving part of the figure of a horseman with another figure beneath (Fig. 7.21; Matheson 1992, 125). This plaque, not otherwise paralleled at Dura, clearly represents a ‘cavalryman and fallen barbarian’ scene of a type familiar from Roman military tombstones.

MILITARY OCCUPATION AROUND THE CITADEL IN B2

Exploration, Recording, and Publication

The buildings inside the gates at the SW end of the Citadel appear to have been directly connected with other very similar structures built against the outside of the defences around the S and nearby ‘middle’ gates. These also relied on series of beam-holes cut into the outer facade of the fortification (Figs 7.16, c and 7.22), a building technique argued to be characteristic of Roman military construction as seen in J7. This zone appears to have been an extension, between the front of the Citadel and a parallel street close to the wall, of the fully built up irregular quadrilateral-shaped block B2 at the S end of the Citadel (Fig. 7.23). Because of the number of kilns found within it, B2 was nicknamed the ‘potters quarter’. The main part of B2 was fully excavated, and it now seems that a significant part of that, too, had been taken over by the Roman military.

B2 was excavated during the sixth and seventh campaigns under du Mesnil and Brown (Fig. 7.24). Almost nothing was published on this block, beyond brief mentions in du Mesnil’s *CRAI* accounts (du Mesnil 1933; 1935), which noted at least three phases, from the Hellenistic period to the third century ad. However, fortunately block B2 was the subject of an intensive archive and field study by the late Anny Allara based on the relatively rich archival record (Allara 2002). The excavators wrote reports on their work now in the Yale archive (Allara 2002, 88–9). Brown’s four-page



Fig. 7.20. Buildings excavated by the middle gate of the Citadel.

manuscript titled 'Block 2 Section B' mostly discusses the setting of B2, while du Mesnil's, a ten-page typescript also in English, 'Excavations in B2', provides a more detailed description of what was found, and the motivation for the dig: in search of a sequence including the earliest phases of the city. Pearson produced an inked plan of 'Section B2' dated 1934, known from a large print and negatives (neg. nos. H62-4) although the initial pencil version survives (archive blocks N.14). Another unnumbered, pencil plan, dated 1932-3 and possibly by Hopkins, also survives showing the excavation before the area abutting the Citadel was dug. Detweiler's preparatory plan for his city map is also preserved, as is an inked profile/elevation through the civil housing (archive blocks N.12).



Fig. 7.21. Fragment of terracotta plaque bearing classic Roman military iconography, from the Citadel. It is part of a scene portraying a cavalryman riding down and spearing a fallen barbarian (Yale 1938.4922: width c.87mm).

It was not appreciated until after the last season of field-work in 2010 that there were indications that military control spilled not only outside the S gate of the Citadel, but around the S end of its walls as well. As a result, the following discussion is based primarily on Allara's restudy, from which it is clear that on excavation the relevant part of the block was relatively poorly preserved and the records, while more detailed than for some other areas, were hard to make sense of.

Discussion

Excavation outside the two southern Citadel gates located patterns of walls of regular Durene construction, apparently indicating that in pre-Roman times, the civil housing of the irregular block B2 at the SE end of the Citadel had also extended around the corner of the defences and as far as the 'middle' gate. Both gates remained open, if probably already reduced in width. The military then expanded the civil housing, by infilling or extending, and by building additional storeys on top of some.

Walling outside the 'middle' gate suggest at least a forecourt, or more likely a roofed building, constructed in Durene civil style (Fig. 7.22, c). Beam holes above this gate indicate this, which was not anchored into the Citadel structure, was given an additional military-style storey, while a

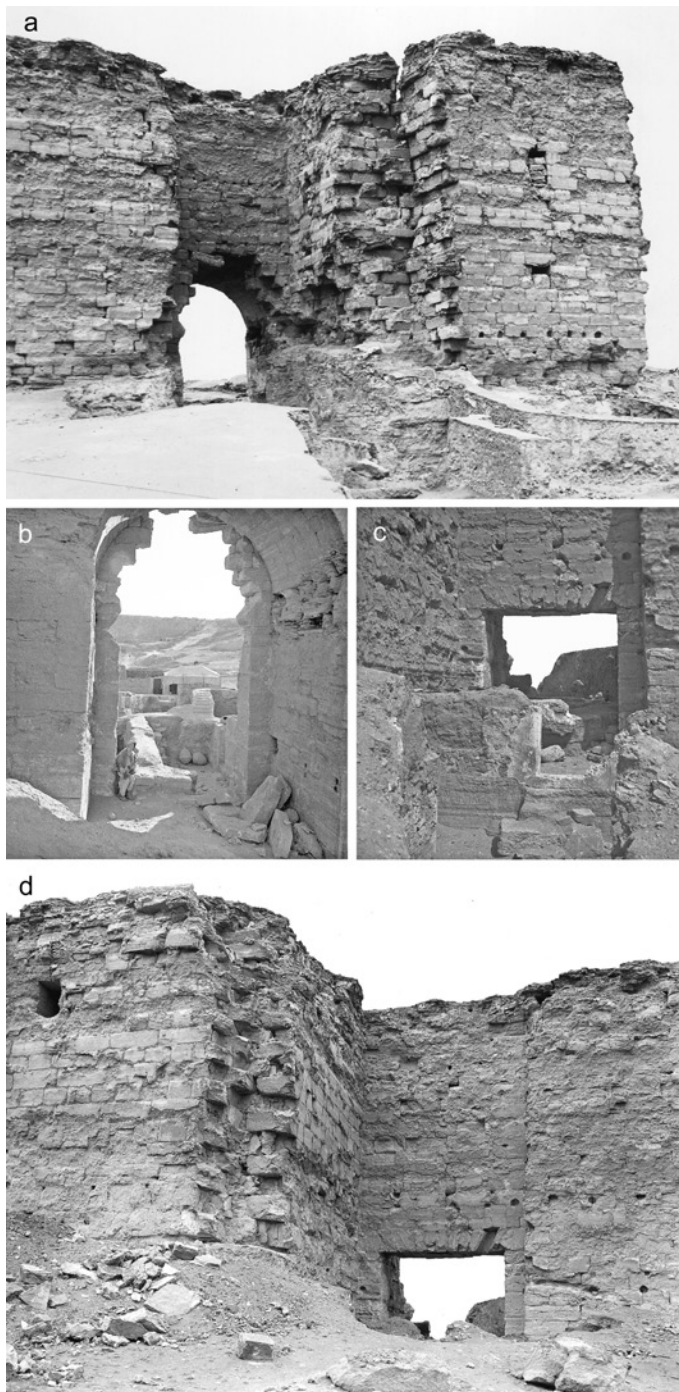


Fig. 7.22. Series of beam holes cut in, and walls built against, the Citadel around the two SE gates: a. the S gate; note the very high row of beams directly over the portal; b. the same gate from the inside showing beam holes in the gate vault, and walls of external buildings impinging on the portal; c. walls constructed immediately outside the 'middle' gate appear to be of normal Durene construction and appear to be pre-Roman; d. more beam-hole series cut into the walls of the Citadel around and over the 'middle' gate and the adjacent tower.

further series of smaller holes attest a lightly roofed single-storey structure built against the face of the adjacent tower (Figs 7.16, c and 7.22, a, d).

Further series of beam holes between the gates were recorded, one of them very high, again suggesting a third, military-style storey added to an existing two-storey civil structure which had not embedded its roof-beams into the Citadel wall (Fig. 7.16, c).

Access between the city streets and the S gate (Figs 7.22, b and 7.23) had apparently in Parthian times been via two external rooms (B2-S3 and S4) and spaces still unexcavated. Allara identified up to six phases in these structures immediately outside the S gate (Allara 2002, 101–3, figs 87–8), most probably pre-Roman. However, more beam holes again indicate a structure three storeys high over the S gate, matching those inside, once more suggesting upward military extension of an existing civilian building not otherwise anchored into the Citadel facade (Fig. 7.16, c).

It seems, then, that in the military period buildings within and outside the S end of the Citadel communicated directly via the S and 'middle' gates, at least until the latter was blocked. The later phases of S4 are connected with radical changes in the main part of block B2 immediately adjacent to the S, where it appears that the Roman military took over the N parts of this block as well as the extension along the Citadel's wadi facade.

In the W part of B2 in the final period of the city lay what Allara called 'Piazza 10' (Allara 2002, 87). This label was taken from Pearson's plan in which the central space was called 'Place 10', distinguished from, because larger than, other open areas in the block labelled 'courts'. However, as it was apparently walled with a door to the street, rather than a piazza (open-access public space) this is better regarded as an unusually large courtyard, i.e. a private controlled space.

'Piazza 10' incorporated the footprint of what had been 'House D', and comprised rooms labelled 'S' all directly opening onto the open space, with additional rooms and spaces apparently dependent on it in 'Area K' under the end wall of the Citadel. 'Area K', which was, or rather had been, a courtyard with cistern, rooms, and a space containing another kiln, was apparently accessible only via Piazza 10, through a door at the back of B2-S18 (Allara 2002, 87–108, figs 64–86).

Significantly, 'Piazza 10', and its dependencies in Area K apparently communicated with the streets only on the N side of B2, via a courtyard door and another from the adjacent room S12 leading onto the corner of an alleyway (Allara 2002, 88), which lay within the military-occupied wadi floor zone in the shadow of the Citadel.

'Piazza 10' belonged to the last period of the city. It was surrounded by rooms the excavators thought were shops (labelled S3–8 etc.), although on slender grounds (Allara 2002, 87). Allara noted numerous difficulties in resolving the phasing of this poorly preserved part of the block, not

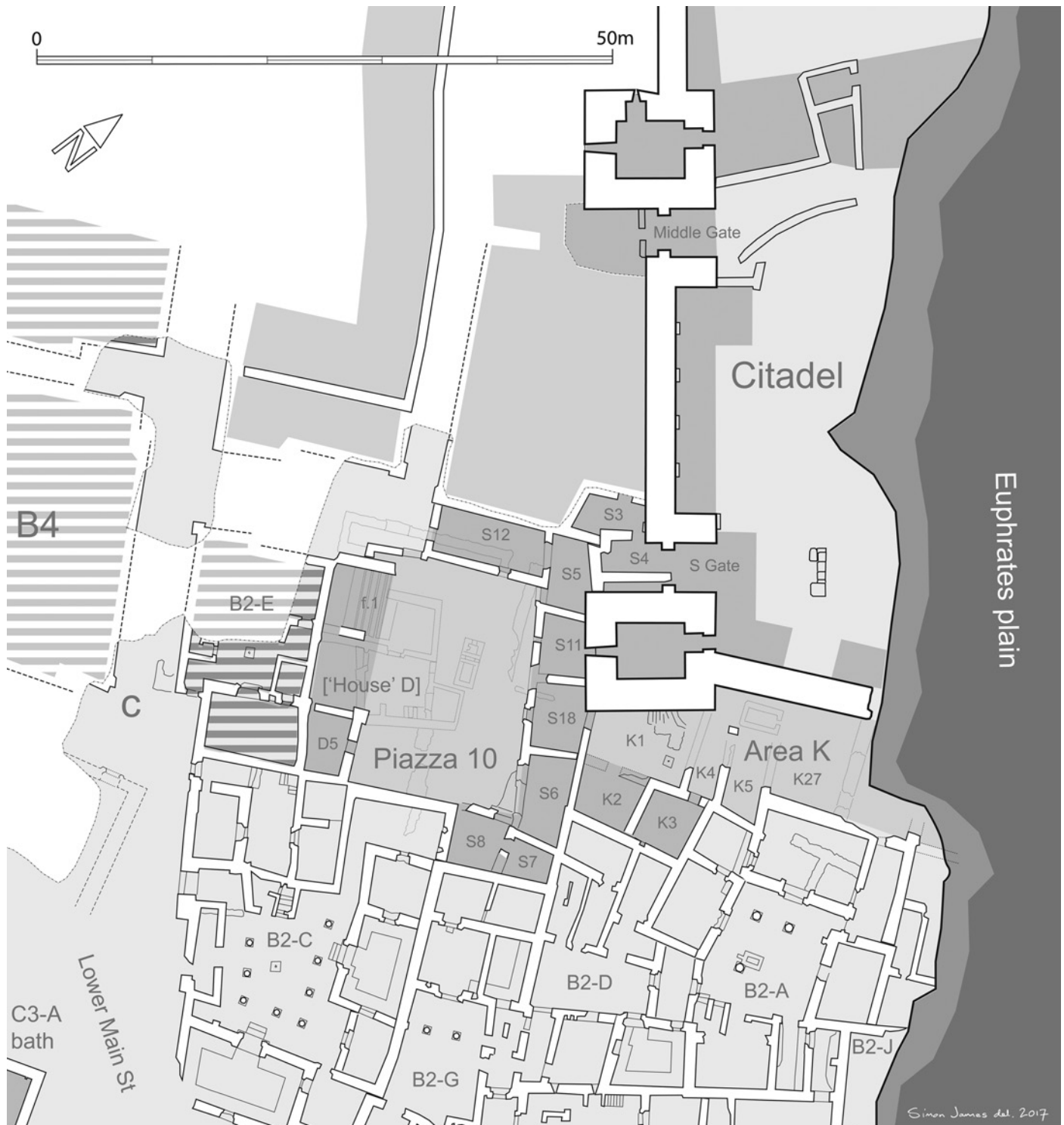


Fig. 7.23. Military occupation inferred within the S end of the Citadel and around it in block B2, based on Pearson's plan and Allara's restudy. Darker grey indicates military roofed structures. Hatching indicates buildings in B2 and B4 also proposed to have been in military hands.

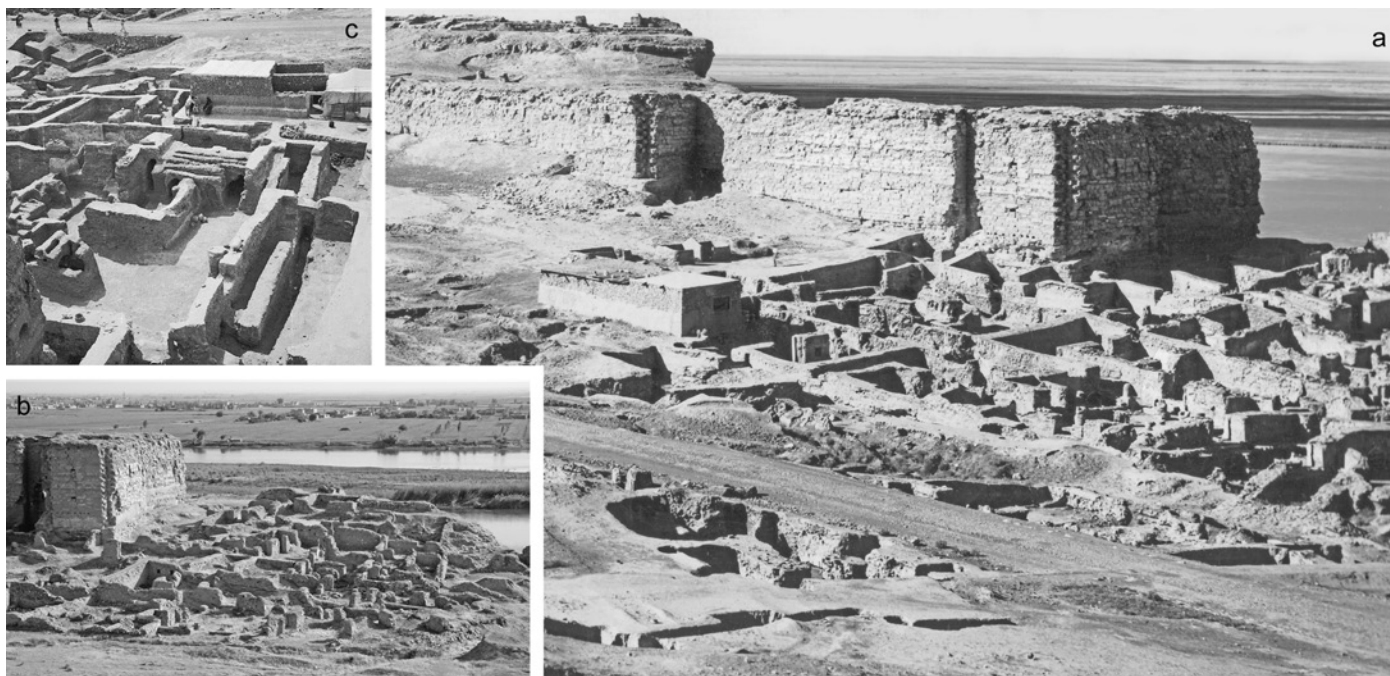


Fig. 7.24. Military structures around the S end of the Citadel in block B2: a. the area shortly after excavation (the roofed structure at L was labelled ‘police house’ on one of the plans); b. block B2 c.2007; c. view from the Citadel wall onto the N part of Piazza 10 showing the palimpsest of structures, including two kilns. These were buried under ground makeup in the military period, the higher late floor level indicated by the threshold between S12 and courtyard in the foreground.

least because of inaccuracies in Pearson’s plan (Allara 2002, 87–8). ‘The most characteristic element of the piazza is the presence of two pottery kilns, one of them of noteworthy dimensions (f.1)’ (Allara 2002, 87, trans. SJ). It seems clear that the kilns belonged to an earlier phase (Allara 2002, 90, figs 66–7). Along with almost all foundations of the former ‘House D’ the kilns were, in the final period, buried below the ground level of the enlarged courtyard which had been substantially raised, as may be seen from the threshold to room S12 visible in Fig. 7.24, c. Significantly, the position of room S11 corresponds neatly with another series of beam holes in the facade of the S tower of the Citadel (Figs 7.16, c, 7.22, a, and 7.24, a).

It is proposed that the best interpretation of the archaeology of the Citadel-abutting zone of B2 is a hitherto-unrecognized military take-over of Piazza 10 and its dependencies, while the bulk of the block—properties accessed from Lower Main St to the S—remained in civilian hands. Such an interpretation makes sense, since Piazza 10/Area K was accessible only from military-controlled ground to the N.

It seems, then, that military conversion involved levelling of ‘House D’ and the kilns, and raising of ground level to create a much larger courtyard surrounded by at least eight rooms, apparently single storey, most of which opened only onto the courtyard. S8 apparently had an inner room, S7.

The large S12 had separate street access and probably also communicated with S5.

On excavation, the structures in Area K abutting the Citadel were all found to have been demolished in antiquity. Neither do the beam-hole series continue round to the end wall of the Citadel exterior. It seems that, for unclear reasons (hardly defence, as the military maintained buildings against the Citadel walls nearby) area K was demolished and kept as open ground in the military period.

What Piazza 10 and Area K may have been used for is unclear due to the poor preservation of the remains. It is noteworthy that these structures formed an inward-looking zone with easily controlled access from the main street network, incorporating an unusually large courtyard. The most likely explanations are some kind of military service facility, as postulated for the great E4 house in its later phase, or as an administrative building such as E4 was initially, or like the E7 military compound in the Temple of Azzanathkona. The last was fairly similar in size and number of rooms.

Adjoining ‘Piazza 10’ to the W, its door onto Lower Main St right next to its junction with perhaps the main road into the military base and up the N branch of the wadi, was the partly excavated house B2-E (Allara 2002, 84–6; Fig. 7.23). This, too, may well also have been taken into military hands, acting as ‘gatehouse’ to the military zone.

THE SOUTHERN LIMIT OF THE BASE: B4
AND LOWER MAIN STREET?

Military occupation in block B2 would have brought the base area effectively all the way down to Lower Main St, just across the road from the C3 bath, itself believed to be of military construction (pp. 212–221). Where was the rest of the S limit of the base area on the wadi floor? It is proposed that the base boundary was the S frontage on Lower Main St, incorporating the entire ill-defined zone labelled B4 by MFSED, and all ground between it and the *campus* (Fig. 7.1). This would include an apparent walled area visible on the surface at the S end of the *campus* and opposite the ‘middle’ tower of the Citadel, which magnetometry suggests may have comprised another pair of compounds surrounded by rooms perhaps resembling ‘Piazza 10’ (Fig. 7.14).

Wadi topography and early settlement meant that here the street pattern in the lower town was irregular rather than a predictable grid. Further, gully erosion and imposition of the Ottoman road make it hard to discern the pattern of streets and blocks. Consequently, in terms of layout this area at the very heart of the city is one of the least understood. Not least, which was the main route leading off Lower Main St connecting with the Wadi Ascent Road to the N, linking the River Gate with the N plateau and the rest of the military base zone? Surface indications from visible wall lines and good magnetometry results (Fig. 7.9) show that the wadi floor immediately N of Lower Main St was densely built up, but it remains very hard to pick out street lines within this area. Detweiler’s plan shows several small irregular blocks, but this looks to be guesswork. In reality, while there are three certain or apparent turnings N off Lower Main St which could have connected through to the Wadi Ascent Road (Fig. 7.1, a, b, c), the pattern of streets in this area remains obscure.

Entrance ‘c’ appears to lead into the widest street running N, and was probably the main through route. It led directly into the military base area at the S end of the Citadel, with a secondary turning leading to its S and middle gates, and probably onto the *campus*. The direct course of the road is obscured by the erosion gully, but appears to lead towards a large enclosure surrounded by a substantial stone wall visible in the surface of the ground. Magnetometry indicates this feature had squarish rooms all down its E side and other subdivisions (Pl. VIII). The gully has erased much evidence, but it is probable that the road diverted to the W side of the wadi floor; magnetometry anomalies indicate walls flanking a line of about the right width in this region. It likely then linked up with the Wadi Ascent Road.

Another candidate for a route connecting Lower Main St with the Wadi Ascent Road is at ‘a’, the line of which would

have needed to dogleg to the E to run along the foot of the steep W side of the wadi. This narrower road was probably only ever secondary.

However, entrance ‘b’ is especially interesting (Figs 7.1 and 8.1). Detweiler’s original survey drawing shows specific walls and doorways here, indicating direct observation of features partly excavated by wall-chasing. This revealed a small open area off Lower Main St, with the entrance itself flanked by substantial piers, perhaps for an arched superstructure. It looks like an elaborated portal to ... what? Detweiler’s city map interpreted it as marking the most direct access route to the main N wadi road. Could it have formed an architecturally adorned main S entrance on Lower Main St to the principal street into the military base? This remains possible, but magnetometry results suggest not. These show strong linear anomalies indicating substantial walls running across the projected line of the putative street. Rather, ‘b’ looks to be the entrance to a complex of buildings, almost literally in the shadow of the *Strategeion*. Was it civic or military? While the recessed portal and whatever lay behind it could have been pre-Roman, there is reason to suggest it may have been part of a larger Roman scheme modifying the heart of the lower town.

The elaboration of entrance ‘b’ is probably connected with other features of this stretch of Lower Main St leading towards the other, SW wadi ascent road below the *Strategeion*. On the S side of the street, a large part of block C3 was demolished in the Roman period, largely for construction of the Roman bath (below). But equally dramatic appears to have been a radical alteration to the Lower Main St frontage line of C3. The excavators revealed foundations of an early building corner and street door NE of the bath, comprising the original corner of block C3 (Fig. 8.1), which indicated that the sharp turn of Lower Main St at junction ‘c’ had originally been very narrow. However, this had evidently been demolished and buried in a general raising of the street level at this point. The N wall of the bath was built well to the S of the old frontage line, turning a stretch of street originally c.6m wide into a space c.20m wide. The result was to turn what was previously a narrow twisting stretch of Lower Main St into an elongated plaza stretching from below the new C3 bath to the elaborated entrance ‘b’ into B4.

This proposed reorganization, conducted by the garrison, creating a new public space in the heart of the old lower town, is roughly analogous to that formed by the *principia*/10th St widening/E3–E4 bathing complex in the heart of the military base on the plateau. However, the Lower Main St scheme, with its quite showy bath, was apparently for the shared benefit of both civic and military communities, at perhaps their most important point of direct daily contact.

Military Presence around and beyond the Base Area

THE C3 BATH

Discovery, Excavation, and Publication

The C3 bathhouse (Figs 8.1 and 8.2), in the heart of the old lower town, the grandest Roman bath in Dura, was not originally envisaged to form part of the present project as it lay well outside the area previously recognized as forming the Roman military base. However, it has long been thought that this bath, and the similar facility M7 at the other end of Main St near the Palmyrene Gate, were constructed by the soldiers. In the case of the C3 bathhouse it also became apparent post-2010 that the zone taken over by the military extended all the way into the adjacent block B2, while the S frontage of B4 opposite the bath on Lower Main St may well have been the edge of the unified military base. Consequently, had it been possible to conduct further fieldwork as projected for 2012, full re-survey of the C3 and (for completeness and comparison) M7 baths would have been undertaken. Circumstances prevented this; however, discussion of these facilities is still necessary, especially as both were only summarily published. This review draws on a preliminary inspection undertaken in 2010, as well as archival material. It concludes that the C3 facility was significantly larger and grander even than already understood.

Like the other bathhouses, the C3 facility was visible as an upstanding mound, and especially noticeable as the Ottoman road ran directly through it (Fig. 8.3). The bath was partially excavated during the sixth season, and archival records are relatively good including a six-page typescript document, 'Notes on Roman Bath in Block C3, excavated Jan.–Mar. 1933', annotated 'M. Crosby?' There is also partial photographic coverage of the structure. The finds registers record 262 finds from the building, over 100 of them ascribed to specific rooms; however, few can now be specifically identified. Brown published a brief account of the bath, composed from 'the notes of the excavator, Miss Margaret Crosby, carefully checked by personal observation of the author' (PR 6, 95, n. 7). This, the only publication on the

C3 facility, formed part of Brown's comparative study of Dura's bathhouses (PR 6, 95–104 and pl. IV, reproducing archive drawing Bath N.12; note on the mosaics and inscription 631: PR 6, 104–5; pls XVI.2–3; XXXIX.1–3).

A plan of all excavations in C3, placing the bath in context, was prepared by Henry Pearson (PR 6, pl. V: archive drawing Bath N.5). Further contextual details are recorded on Pearson's plan of the neighbouring B2 (neg. H62). In some respects these three drawings differ or contradict (e.g. over the exact outline of the W wall of the heated block), so in the absence of re-survey the new plan presented (Fig. 8.1) must be regarded as provisional.

Within block C3, the bath was designated structure C3-A to distinguish it from other buildings excavated to S and W. In her notes, Crosby applied the procedure of assigning a simple numerical sequence to individual rooms, followed in the finds and photographic records and by Pearson in his plan. However, Brown applied a second, different space-labelling system for his comparative publication, devised to highlight the similarities between Dura's baths. Brown's scheme is followed here.

Most of the building itself was uncovered, including all the heated rooms except that at the S end (Brown's C, *caldarium*). However, a strip across the middle remains unexcavated beneath the carriageway of the Ottoman road, still in 2010 the main vehicle track across the site. In 2010, inspection of the exposed remains was also extensively hindered by post-1937 erosion of walls, hill wash almost completely refilling excavated spaces, and thick undergrowth. However, fairly extensive photography was undertaken of what remained visible, while some MFSED Total Station points fixed the location of the main heated suite on the modern grid.

Outline Description

The bath was built on Lower Main St, near the presumed site of the River Gate. It stood at the junction of the main inner wadi and its short W spur, below the *Strategeion*. It lay at the

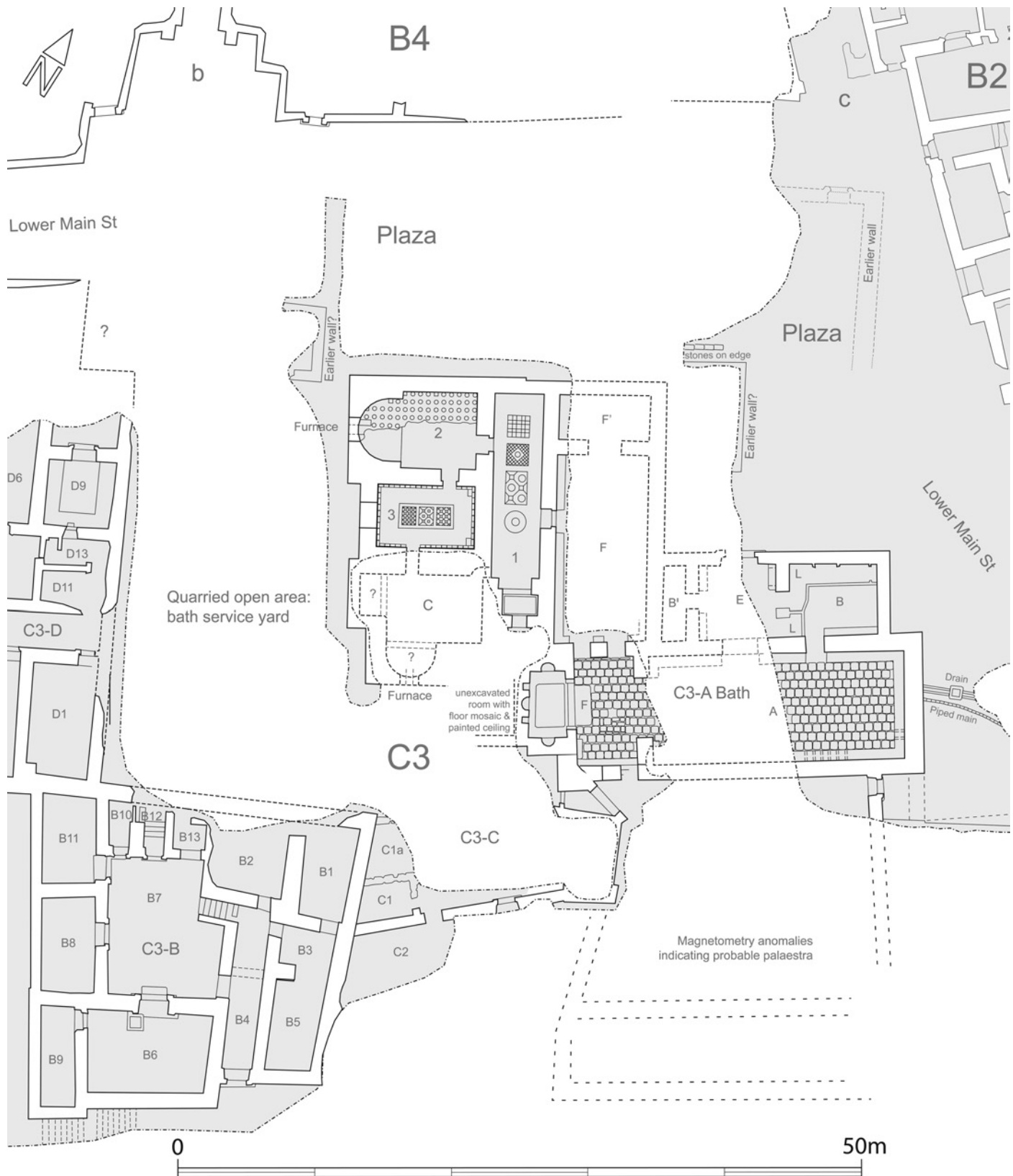


Fig. 8.1. A provisional new plan of the C3-A bathing establishment in its setting, based on archival photographs and drawings by Brown and Pearson, supplemented by preliminary re-examination and magnetometry data. Construction of the bath required demolition of a substantial part of block C3, but was part of a bigger scheme to create an open public space where there had been a narrow, twisting main street. This was probably also connected with the elaborate inset entrance 'b' across Lower Main St to the NW.



Fig. 8.2. The C3-A bath from the N in 2005, with room 1 silted to ground level and grass-covered (L), and room 2 at centre. Other buildings in C3 are visible terraced into the steep wadi slope behind, with the *Strategeion* on the skyline top R.

foot of the wadi slope, the ground already rising sharply at the SW corner of the facility. Buildings behind it stood on terraces quarried into the steep wadi side.

The heated suite was orthogonal, but the ancillary structures (apparently in normal Durene construction of mortared gypsum rubble foundations with mud-brick superstructures) lay at a slight angle to it, due to the irregularity of the street plan. Much of the heated suite survived to well above door height on excavation.

Even without full resurvey, Brown's brief published account requires amendment. The bath was entered from what Brown called a small piazza, into room E, with adjacent latrines (L) 'screened from room B by a thin rubble wall probably never more than breast high' (PR 6, 95–6). The small chamber B' was inferred on grounds of symmetry, and similarly a direct main entrance into the large *apodyterium*

A was inferred axial to the street door. The *apodyterium* was tiled, with plaster benches all around, and access into B, 'a subsidiary dressing room'. Unfortunately no useful photos exist of L/B, but Brown's account is probably garbled, as are the plans which show linear features perhaps conflating water channels and his 'partition'. More likely this whole space was the latrine, the thin plaster 'partition' being the front of the toilet seating—or a real partition, representing a secondary inserted facility, like the smaller latrine inserted into the larger space in the Roman Palace. Two phases here, the first with access also from E, the second only from A, could help explain the confusion.

The main N–S block was constructed of brick-faced concrete, its doors having possessed flat brick arches (Fig. 8.8). Concrete vaulting debris was found (Fig. 8.3, bottom: PR 6, 96). Only the S part of the long area Brown designated



Fig. 8.3. Top, the C3 bath from the NW (centre), after excavation in the sixth season. Its service yard lies unexcavated to its R, and the Ottoman road runs through it on the far side of the excavated heated block. In the foreground is the widened Lower Main St, and the elaborated entrance b to block B4. Beyond the bath lies the expedition house. Below, fallen roofing vault of the C3 bath.

F (*frigidarium*) was fully excavated (Fig. 8.4). A stub of cross wall indicated a subdivision at its N end (F') which has an analogue in the E3 bath. At the S end tiled flooring extended through a wide portal from A to a large plunge pool with niches in an alcove on the W side (Fig. 8.4; *PR* 6, 96). The massive walls and piers suggest that this S part of F and the pool had been vaulted; painted ceiling bricks like those from the synagogue found in this room 'occurred rather high in the fill' and Brown suggested they 'dropped from house C adjoining' (*PR* 6, 99 and n. 9), to which we will return.

Brown recorded that originally there had been two portals at the S end of F, the W one being subsequently blocked with rubble construction connected with an oblique arched entrance outside leading into the adjacent building C3-C (*PR* 6, 97; Fig. 8.1).

From the middle of the long room F a door connected to the elongated, narrow vaulted room 1 'floored with white mosaic with four panels of geometric pattern' (*PR* 6, 97, 104–5; Fig. 8.5, a). One of the panels included a medallion with a formulaic good-luck text in Greek, identical to another in the M7 bath (*PR* 6, 105, no. 631; Fig. 8.6). The vault was high, as the walls survived up to 4.7m with no trace of springing. At the S end was a small plunge (Fig. 8.5, b, c). This was of asymmetric layout relative to the axis of 1 which Brown could not explain, but reasonably assumed was somehow related to the construction of the unexcavated adjacent *caldarium* C (*PR* 6, 97–8). The asymmetry is in fact echoed in both the E3 and M7 baths, where room C was longer than rooms 2 and 3, and similarly displaced the pool at the end of room 1 off-axis. Each also originally had a curving passage between C and 1, also attested in M7 by a blocked door at the SW corner of 1. A similar direct passage from 1 to C had existed in the C3 bath, also later walled up. On analogy with room 1 of the similarly laid-out M7 bath, it is possible that a third *praefurnium* lay beneath the pool at the S end of C3-1, which room may also have been heated.

From room 1 bathers moved to 2, its main area roughly square, 'perhaps cross-vaulted', but the walls surviving to 4.7m showed no trace of springing (Fig. 8.7). Its apsidal niche possessed a large window to the W (*PR* 6, 98). Brown believed the floor had been completely smashed by collapse of the vaults, but this is implausible, as the hypocaust *pilae* were still standing *in situ*. Rather, the still-vaulted building had been systematically stripped, including ripping up part of the plain white tessellated floor to get at the square tiles beneath, leaving the less-useful round bricks of the *pilae*, and discarding fragments of mosaic found between them. The apse at least had possessed marble veneer attached with bronze clamps (*PR* 6, 98). Not mentioned or shown on the plan, the hypocaust vented through *tubuli* covering the walls (Fig. 8.7, b; Boniteau 2012), but most of these too had been robbed, as had the bricks forming the flat arches of the doors from 1 and 3 which Brown erroneously thought had fallen (*PR* 6, 98; Fig. 8.8). Room 2 had its own furnace, but probably like E3-2 lacked a pool; it was likely a hot dry room.

Room 3, between the two rooms with furnaces (Fig. 8.9), also had a large W window. Its intact white mosaic floor had a central three-panel geometric design, the W panel mostly crude repair on excavation (*PR* 6, 98–9, 104–5; Fig. 8.10). The room was sheathed in *tubuli*. Its door to the unexcavated *caldarium* C was revealed. The outer wall of the latter has a rectangular projection which Brown thought was to accommodate an apsidal W pool, with a further projection suggesting a rectangular pool at its S end, like the M7 bath. However, the opposite arrangement like E3 is equally possible (Fig. 8.1). Brown concluded the *praefurnium* for C was at the S end, where soot and ashes were encountered (*PR* 6, 98–9). However, unlike the E3



and F3 facilities there was no major ash mound, as proximity to the River Gate made disposal relatively easy.

Few traces of the water supply system round the building were seen, although a ceramic pipe 'traceable at intervals for 40.00m' up Lower Main St was identified leading under the E end of room A. This would have been a pressurized supply fed by machinery and an elevated reservoir on or near the River Gate (PR 6, 100–1). Parts of the drainage system were found, feeding a channel revealed at the E end of A leading towards the River Gate (PR 6, 99).

This substantial facility was, by Durene standards, elaborately embellished. In addition to mosaics and marble veneer, Crosby's notes record window glass and painted wall plaster. It also underwent both minor repairs (e.g. patches to the mosaic and tiled flooring) and more substantial modifications (e.g. blocking of a door between 1 and C).

The bath complex occupied the wadi-floor part of C3 facing Lower Main St, which deviated around its E and N side. On the W, a rectangular area, perhaps already quarried for earlier housing, accommodating a small service yard around the furnaces. On the S side of the building, part-excavated wall lines and magnetometry (Fig. 1.12) indicate an irregular courtyard. This, accessible from room F and directly from the street, had a roofed space on its S side. Generally similar to the arrangements hypothesized for the N side of the F3 bath, this appears to be a modest *palaestra*, the best that could be created in a densely occupied part of the city.

Of particular interest is what lay at the SW corner of the excavated complex, in the area designated 'house C3-C' between caldarium C and its furnace, and the newly identified *palaestra*. It is not possible to make sense of the fragmentary evidence for C3-C, or even to be certain that it formed a single coherent structure. However, two elements can be discerned. On the E side of C3-C are walls on the alignment of the irregular *palaestra*, including foundations of an arched entrance apparently associated with Brown's blocking of one of originally two S portals into F; this part of C3-C at least appears, then, to be a second, late phase, and comprised a narrow but elaborate passageway leading to... what? A new observation hints that the arch may have led to a small but highly embellished space built against the bath.

During photography in 2010, it was observed that erosion had exposed the edge of a further, hitherto unknown mosaic behind the pool in F (Fig. 8.4, a). This floor was 1.5–2m above the level of F, on a terrace as the slope of the wadi side steepened sharply at the rear of the bath. There was,

Fig. 8.4. Pool area at S end of *frigidarium* F: a. the rear wall of the pool in 2010, showing eroded niches, vegetation, and tessellated floor of a room above and behind the pool weathering out of the section (arrowed); b. The pool after excavation; c. reverse angle showing pool steps, tiled floor, and doors to *apodyterium* A (L) and to presumed *palaestra* (R).

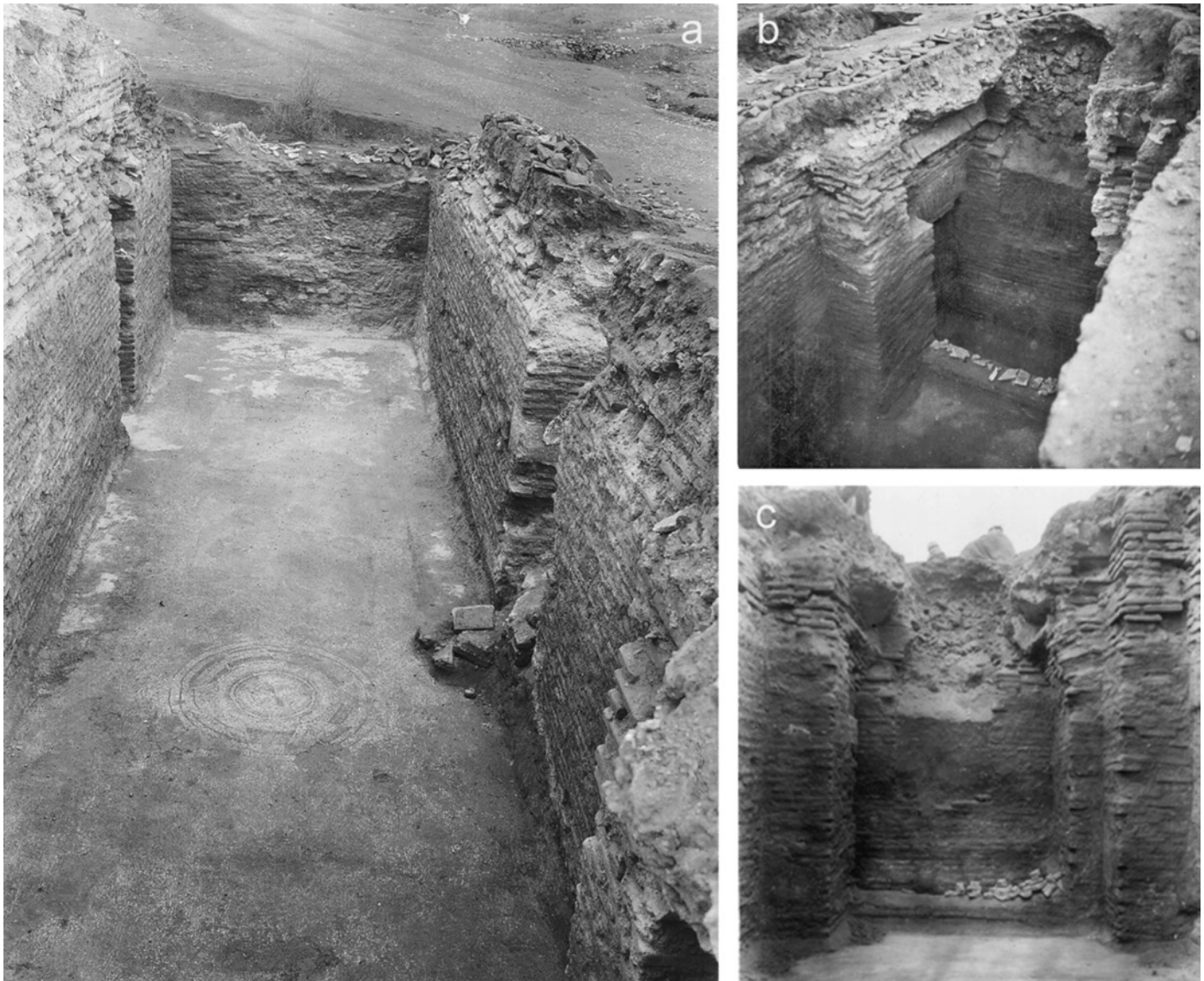


Fig. 8.5. C3 bath, room 1: a. looking N, showing part of the mosaic floor, with Ottoman road beyond; b. the S end of the room showing plunge with niche still full of earth at back, and apparent earlier, blocked door to room F on its E side; note vault springing; c. the plunge from ground level.

then, an important space W of room F, not accessed from within the bath. Brown noted that Room F produced ‘painted bricks...with designs of pomegranates, *peltae*, wreaths, rosettes, and capricorn’ like the ceiling tiles from the synagogue which, as they were found high in the fill, he suggested had ‘dropped from house C adjoining’ (PR 6, 99 and n. 9). These probably came from the roof of the new mosaic-floored room. What was its purpose? Comparison with the E3 bath offers a plausible explanation, in the form of a similar, if less grandly appointed facility: the externally accessed room E3-B, apparently a social space and dining room heated by the massive wall of the adjacent concrete

bath block. Abutting the C3 bath *caldarium*, the C3-C mosaic room may have worked the same way, and served similar functions.

Dating

The building lacked any epigraphic date. Brown argued that the E3, M7, and C3 baths were all built around the same time, on the basis that they were constructed using the same materials to variations on the same plan; and that this programme took place with the expansion of the garrison, c.210–15, E3 being built because of the fortuitous destruction

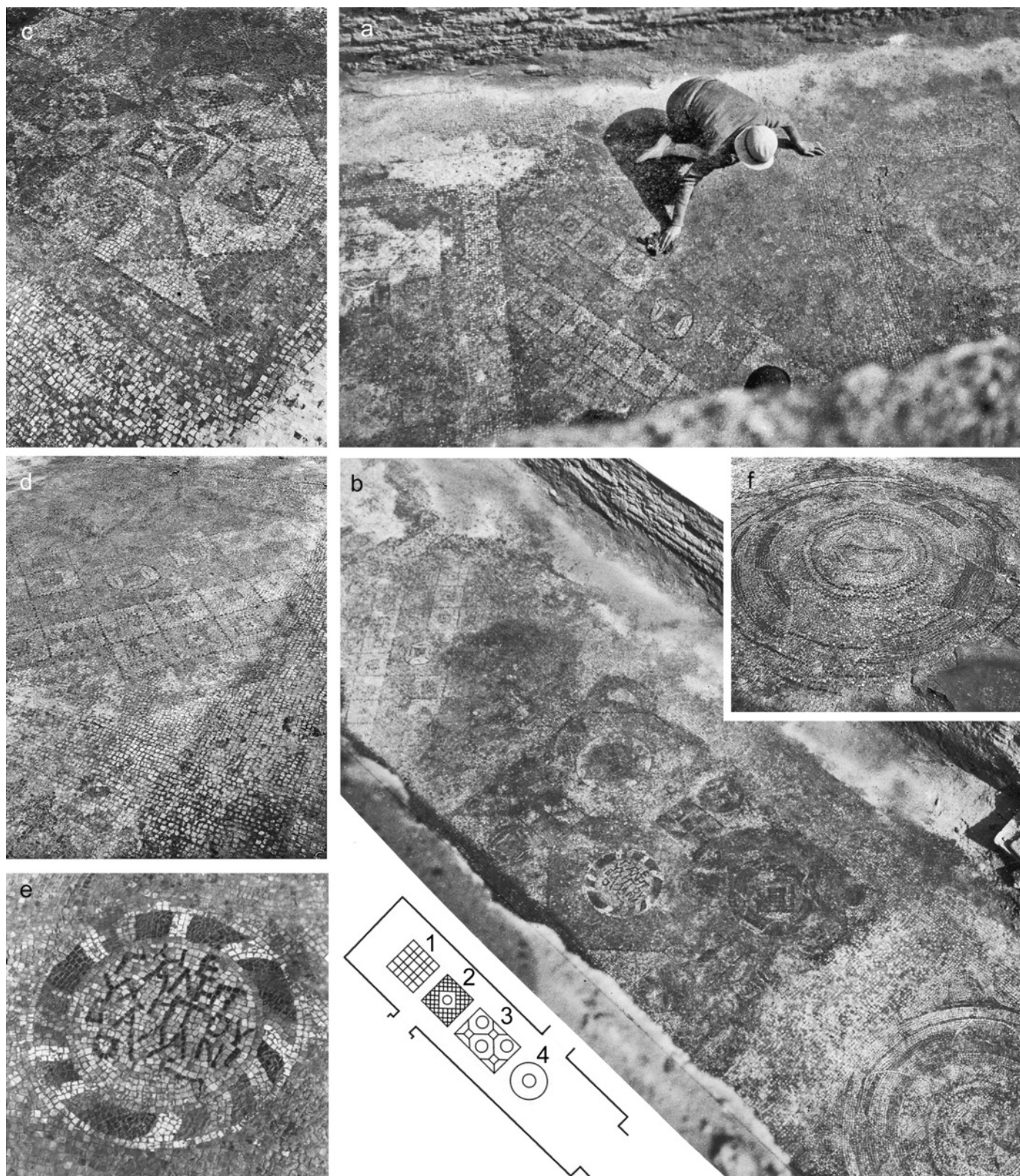


Fig. 8.6. Mosaic floor in bath C3 room 1: a. Margaret Crosby and a male colleague cleaning and wetting the mosaic panels for photography; b. the three S panels and part of the N panel with apparent plaster repair (top L); c. detail of panel 1; d. detail of panel 2; e. detail of panel 3 with inscription roundel; f. panel 4, roundel, again with plaster repair on nearer edge.

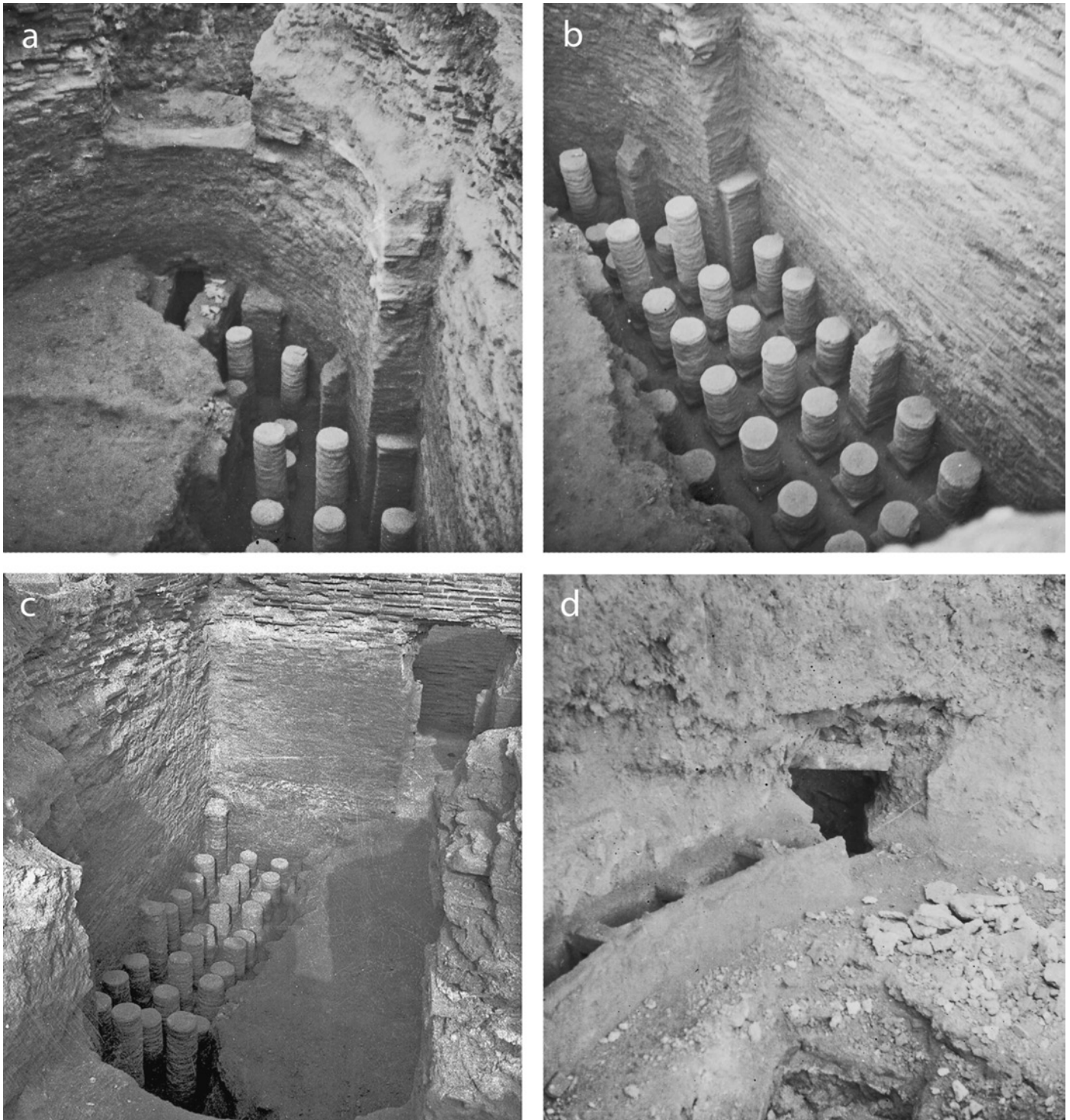


Fig. 8.7. C3 bath, room 2: a. looking W, showing apse with window, and furnace flue; b. the N side of the room with floor robbed exposing hypocaust pilae; c. view from W window showing door to 1; d. detail of apse with damaged floor and *in situ* lowest row of *tubuli*.

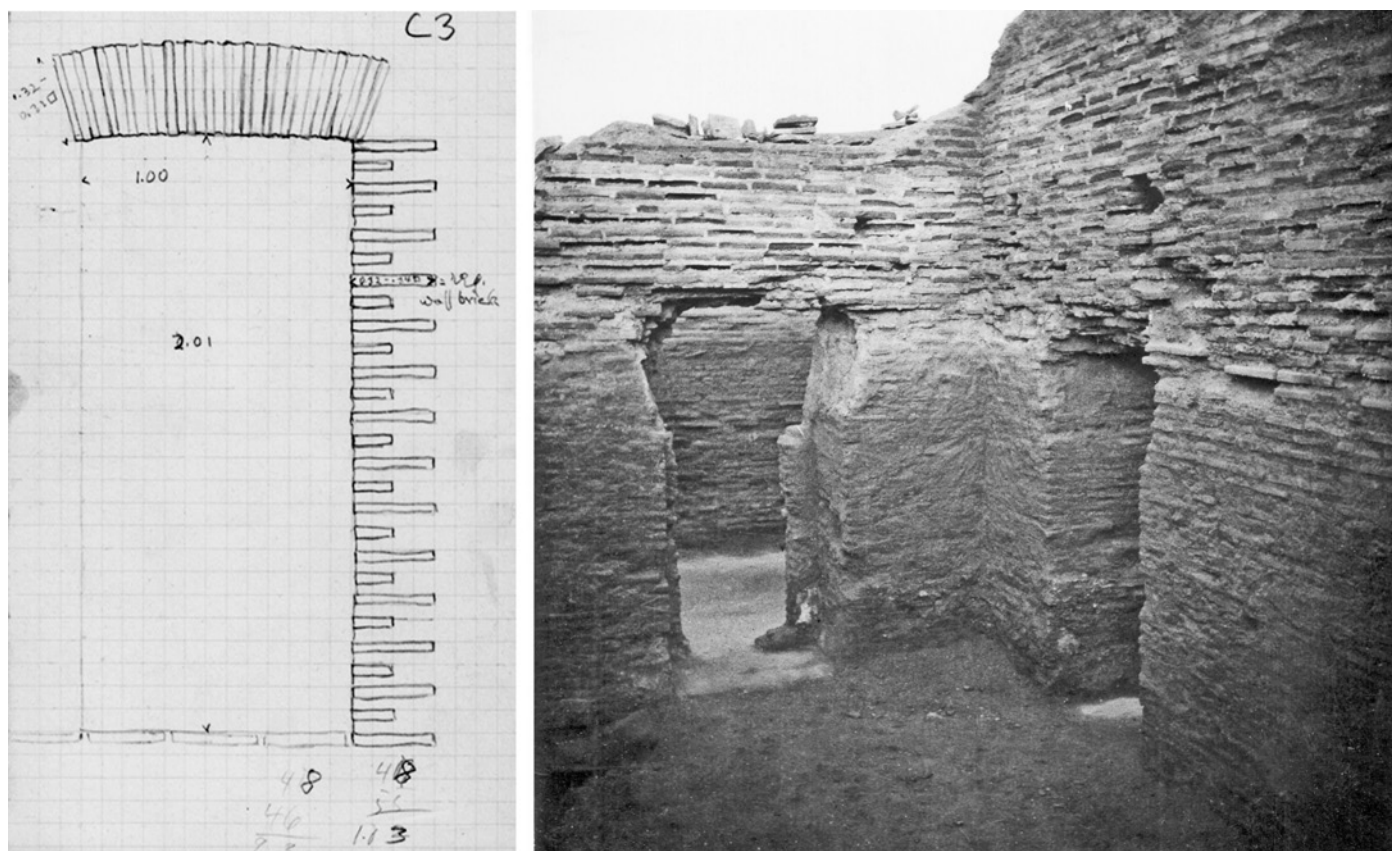


Fig. 8.8. R, C3 bath Room 2 looking E to door to 1 and (R) 3; note removal of bricks of the flat door arches. L, archive sketch of original dimensions of one of the doors.

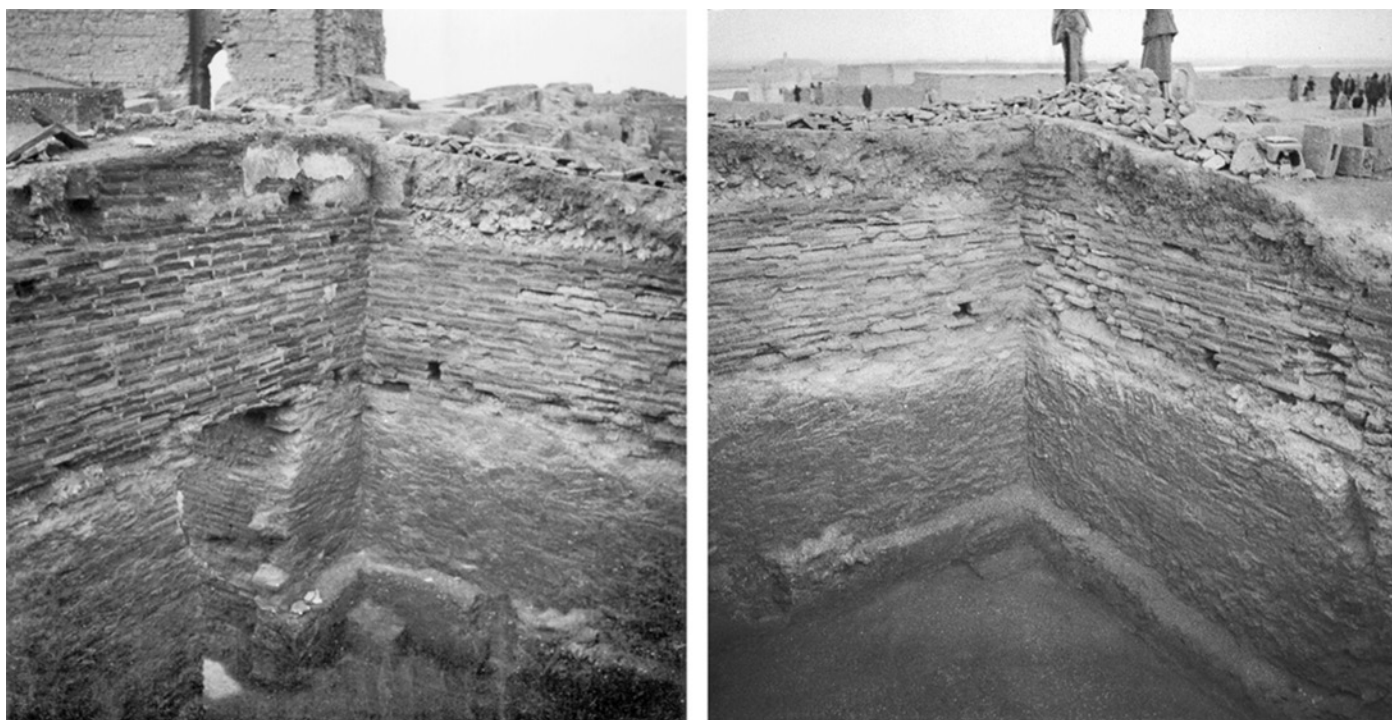


Fig. 8.9. C3 bath room 3 E side showing 'ledge' (*tubuli*?) and wall holes.

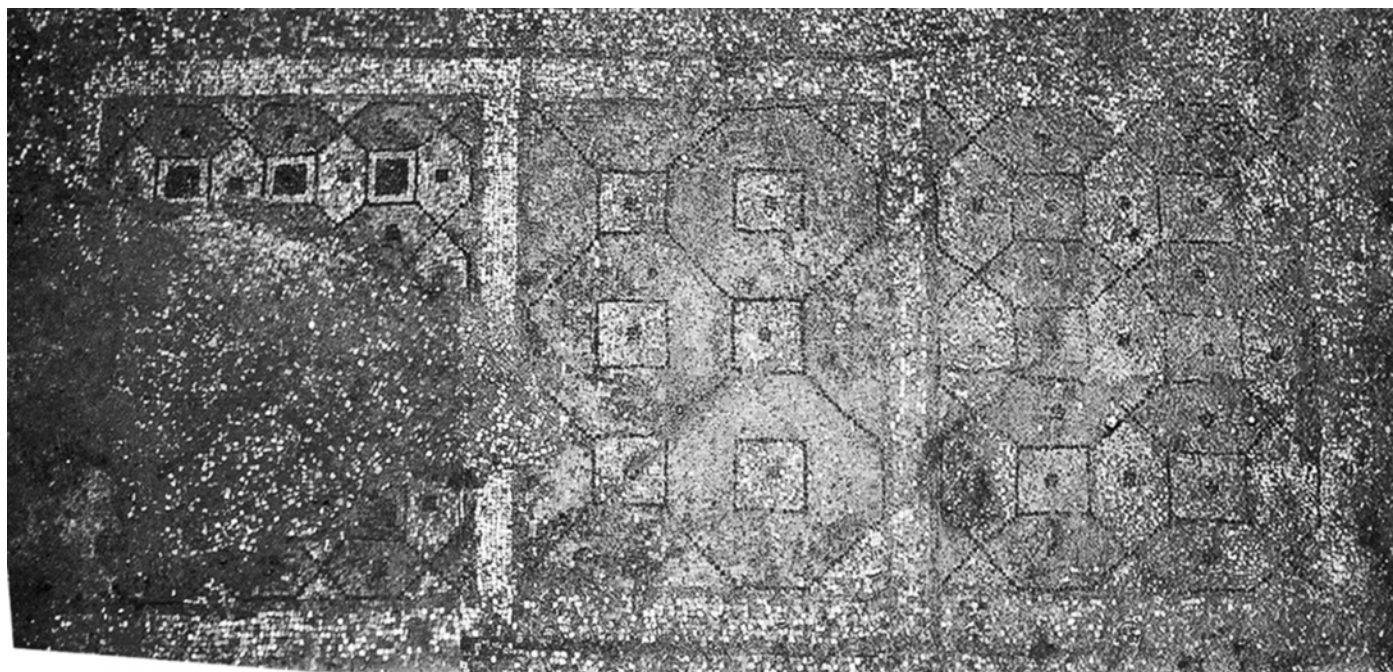


Fig. 8.10. Rectified composite image of mosaic panels in room C3-3 (N at top).

of the older F3 facility (PR 6, 102–4). While Brown was probably right that the three baths were built around the same time, his proposed dating will be questioned later.

Discussion

In comparing it with the similar facilities at E3 and M7, Brown described the C3 bath as ‘the largest and richest of the three’ (PR 6, 95). With identification of a *palaestra* and the likelihood that part or all of ‘house’ C3-C and the open area to the W also belonged to it, the Roman bath and leisure complex on Lower Main St now looks to have been even grander than previously understood, and indeed twice as large. It was a very prominent establishment in the heart of the lower town, at one of the critical street junctions of the city.

Who was it for? Brown opined that ‘M7 and C3 were not exclusively military baths, but mark a step in the intensive Romanization of municipal life characteristic of the city’s last half century’ (PR 6, 104). In other words, these baths were for civilians at least as much as soldiers. Indeed, Crosby’s notes end with a brief paragraph on the finds of portable artefacts, described as being ‘of no particular significance’, although ‘beads in the drains’ were specifically recorded, suggesting use of the baths by women, and indicating they were open at least to military families, and probably the urban population as a whole.

M7 BATH

Discovery and Excavation

The bath in M7 fronted onto the S side of Main St, and stood on the W corner of its junction with A St, c.35m from the Palmyrene Gate (Plate XXII at X; Figs 8.11 and 8.12, a, b). This facility was similar in layout to, and the counterpart of, the C3 bath in the lower town at the other end of Main St (Fig. 8.11). The M7 facility also lay close to the standing military presence at the Palmyrene Gate, and appears to have been supplied with water piped from a pumping system in the N base area. Extensively photographed in 2010, planned subsequent TS survey of the remains was prevented by the civil war. The following review is therefore provisional.

The building was cleared during the third season, and a very brief unillustrated account published by Pillet (PR 3, 4, 13–14). He recorded that its street portico had been excavated in the second season, producing ‘numerous vestiges of paintings with which its walls were decorated’, too fragmentary to reconstruct but including geometric patterns and apparently more ambitious motifs. Pillet described the layout using a room-lettering system, but provided no plan: however his scheme is annotated on a print of a later plan in the archive. A series of water tanks was located on the S side of the building, as was the ‘heating plant’. Pillet stated that ‘no object of interest was found’.

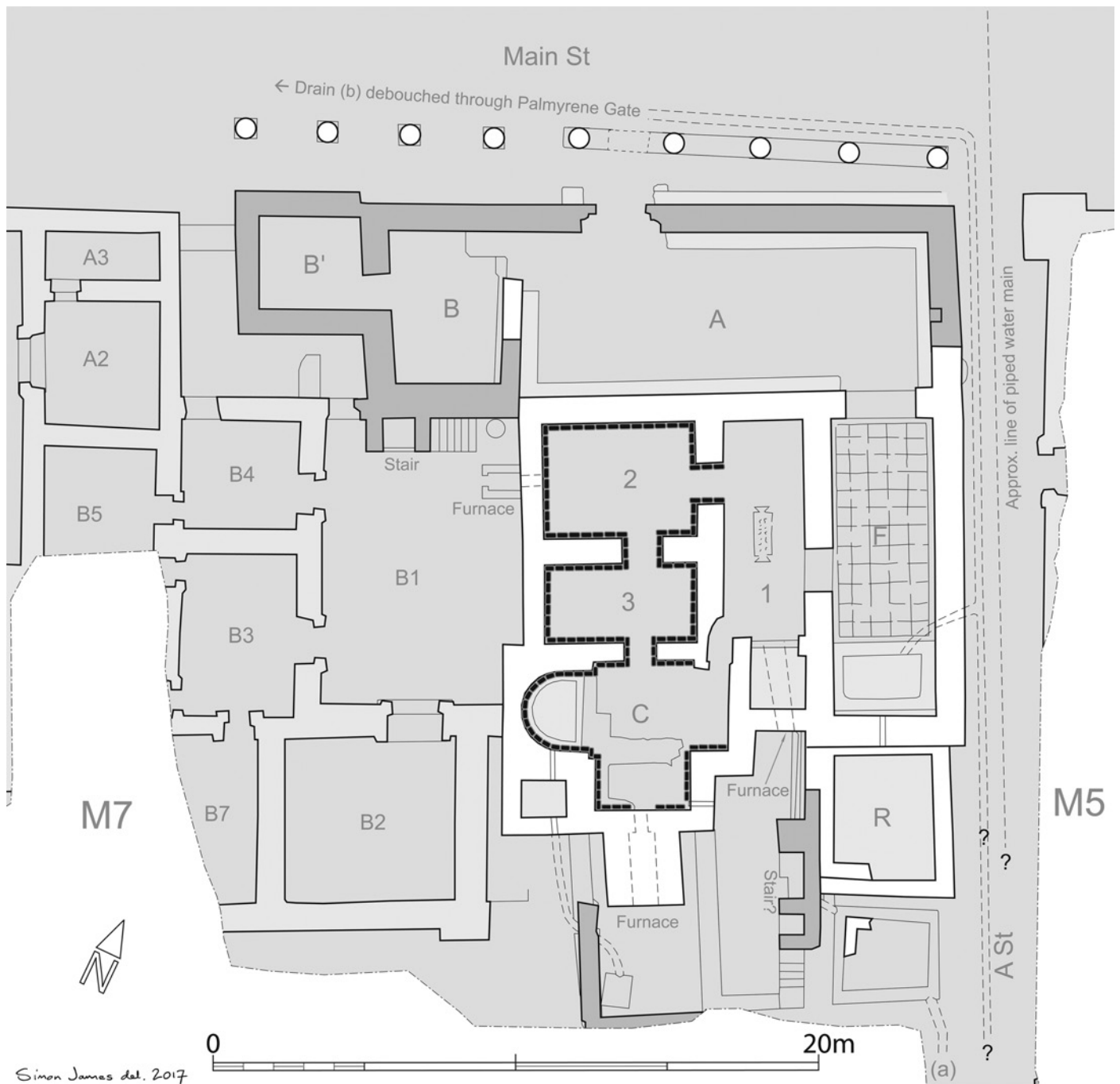


Fig. 8.11. Provisional new plan of the M7 bath. In the absence of new Total Station points and detailed resurvey, this is a best-estimate composite of Cavro's survey, and Brown's reworking of it, combined with Knox's plan of adjacent structures, archival photographs, and 2010 photography and observations. The different wall tones reproduce distinctions made by Cavro, but their significance is uncertain.

The building was excavated before finds records were kept, and before the city block numbering system was devised, when it was retrospectively labelled as part of M7. No manuscript account of the excavation survives, although there is a pencil plan of the bath and other features near the Palmyrene gate dated 1931–2 (fifth season: archive R Baths

N.13). Brown subsequently examined the building as part of his comparative study of Dura's baths, his room renumbering being followed here. His account was quite detailed, and should be read in conjunction with the following review (*PR* 6: description, 84–90; water supply system, 100; discussion 102–4; overall plan, hypocaust plan, and section, and sketches

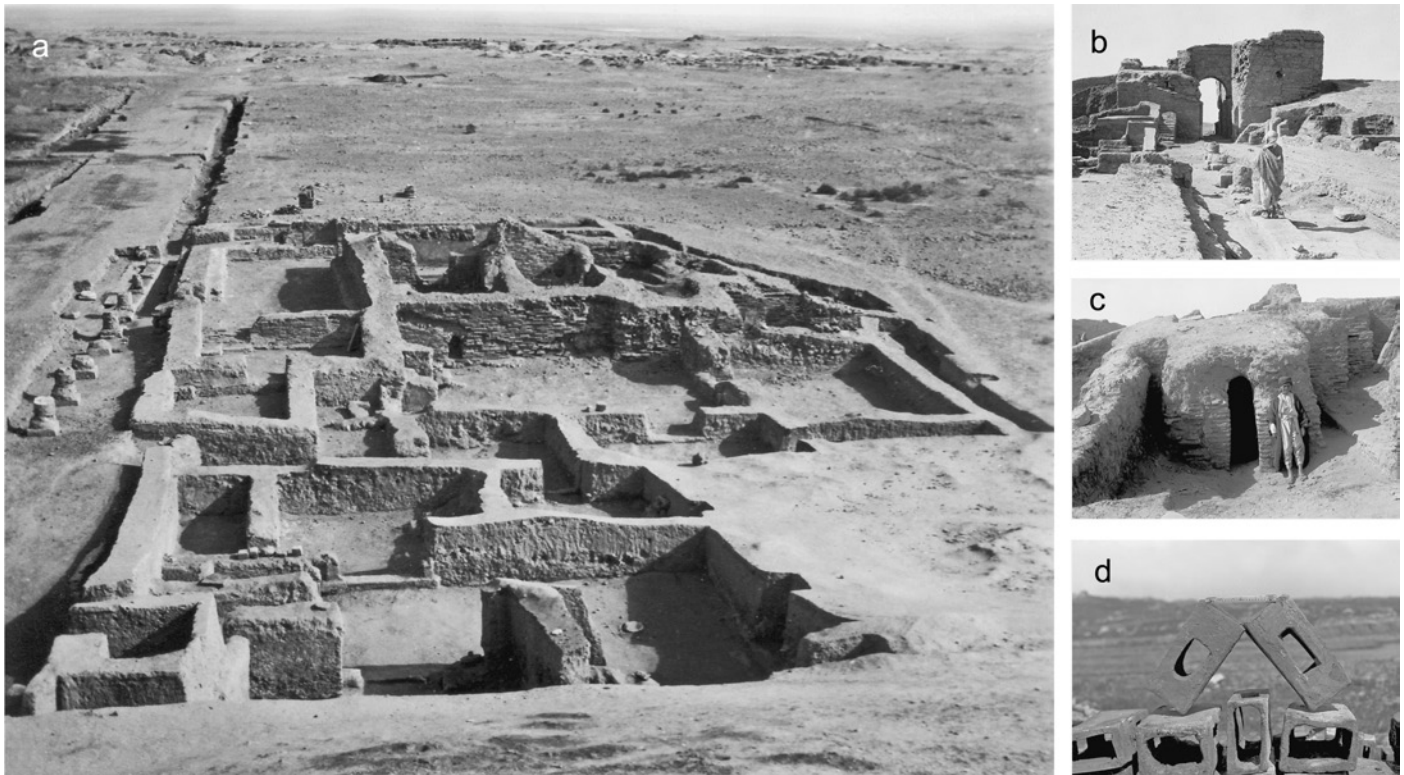


Fig. 8.12. The M7 bath: a. seen from the W, its colonnaded entrance facing onto Main St, with a civil house in foreground. Taken in the fourth season from the city wall just S of the Palmyrene Gate; b. the bath's colonnade on Main St, looking towards the Palmyrene Gate; c. the S stokehole; d. box flue tiles from the heated suite.

of the hypocaust system, pl. IV; photos of details of the hypocausts, pl. XV.1–2). Brown was apparently using and modifying a plan surveyed and drawn by Maurice Cavro in 1933, also preserved in the archive (unnumbered). Otherwise Brown seemingly described the exposed remains as he saw them, apparently with little or no access to information about stratigraphy or materials previously removed. A pencil sketch-plan also exists with annotations by Brown, along with several cards bearing addition notes and sketches. Detweiler later also surveyed the block for his city map. As for ancillary structures, the various plans differ in detail and interpretation, and in places contradict, e.g. with regard to doorways into, and modifications of, house M7-B which became a service yard for the bath. In the absence of resurvey, the new provisional plan (Fig. 8.11) is therefore a best-guess composite of the archive drawings.

Like others at Dura, the M7 bath provided no epigraphic evidence of its date of construction, which Brown noted had involved demolition of two or more existing houses, parts of which were reused as ancillary structures (PR 6, 89–90). However, on the basis of close similarities in design and building technique, Brown believed that this bath had been constructed c.210–15 along with those at E3 and C3 (PR 6, 103–4).

The building was fronted by a shallow colonnade on Main St, flanking the only entrance. There was no provision for any *palaestra*. To the S and W were service areas around two *praefurnia* for the main hypocaust system, one on the S heating *caldarium* C (Fig. 8.12, c), the second on the W serving room 2. Curiously, a third furnace heated room 1, and its pool which overlay this *praefurnium* (Fig. 8.12, b). The sub-floor space of room 1 did not use *pilae*, but was built as a brick barrel vault (Fig. 8.13), an arrangement Brown thought unique to the M7 bath (PR 6, 86), although similarity of plan suggests the C3 *thermae* may have been similarly equipped. Unlike the E3 and F3 baths, there was no adjacent ash-dump, because like the C3 bath, M7 was close to a main gate. Outside the Palmyrene Gate lay a large rubbish tip containing much ash (PR 9.2, 3–4).

Entering from the street-side colonnade, the visitor came into a large *apodyterium* (A), connecting with two other rooms, one of which may have been a latrine (B, B'). A wide portal gave into *frigidarium* F, with a large pool at the end (Fig. 8.13, a). A door in the middle of the W wall of F led into the heated suite, 1-2-3-C. Of brick-faced concrete, the heated suite had floors on brick *pilae* except for room 1 (Fig. 8.14). It retained evidence of springing for barrel vaults, and contained traces of decorative marble veneering and

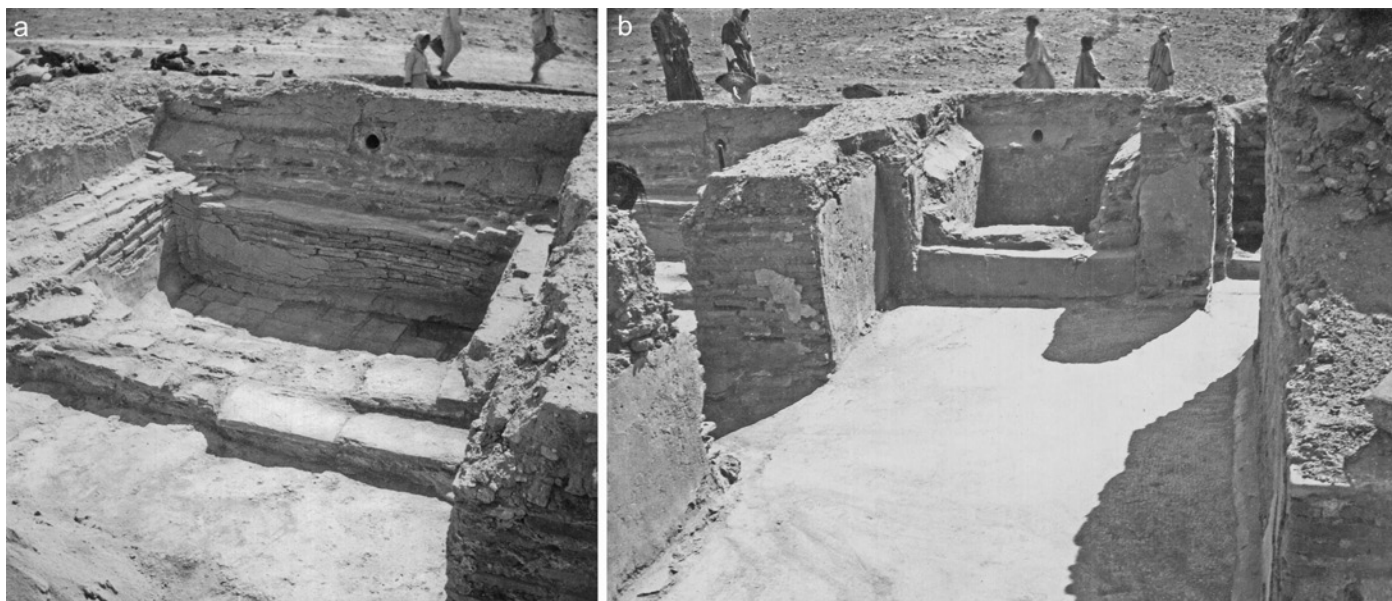


Fig. 8.13. Bath M7, a. large pool at the end of the M7 bath *frigidarium*; b. pool at S end of room 1, showing Brown's low vault springing over it.

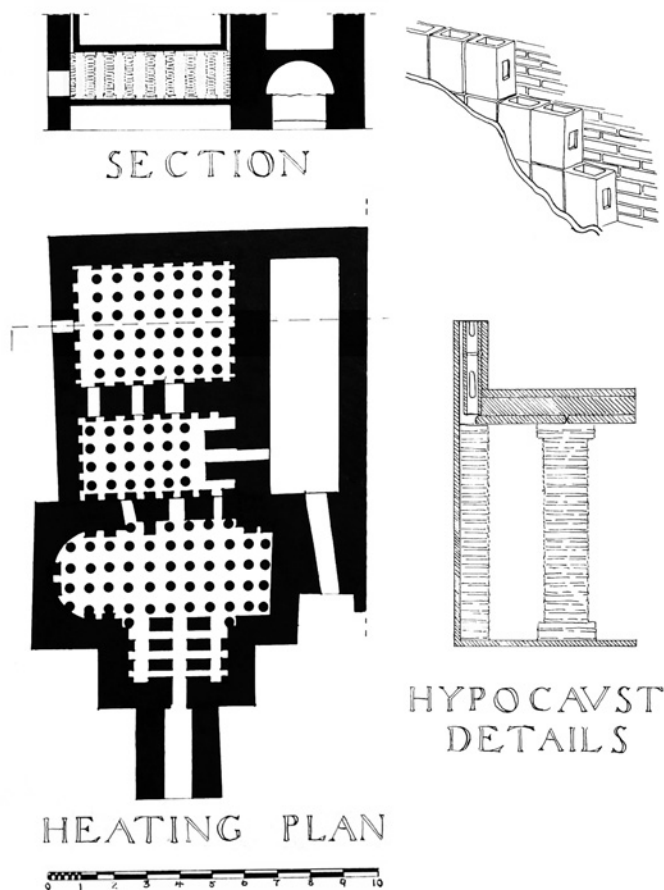


Fig. 8.14. Collage of Cavro's drawings of the M7 hypocaust system, as traced and reproduced by Brown (*PR* 6, pl. IV). Plan inverted and section reversed to match orientation of Fig. 8.11.

mosaic flooring which, with the colonnade paintings, suggests the building was by Durene standards almost as pretentious as the C3 facility. The floor mosaic of room 1 included a tessellated inscription, the text identical to that found in the mosaic of the analogous room in the C3 bath, a literal Greek translation of a Latin acclamation invoking a deity, the *Fortuna* of the Bath (*PR* 4, 78, no. 180), further underlining the connections between the M7 and C3 facilities. An archive photo also shows part of a geometric mosaic in room 3, which had been patched and plastered over, attesting sustained use and repair (Fig. 8.15).

Brown argued the bath had a very elaborate hydraulic system, water for which, he plausibly proposed, was supplied via an underground ceramic-piped main 'traceable at intervals for about 250.00m from the SE corner of Bath M7 down Street A to a point midway between Streets 4 and 6' (*PR* 6, 100), probably linking up with another stretch of pipeline, traced from the N defences down D St, via a dog-leg along 6th St. He saw this as part of a wider system of piped water supply to the several Roman baths, which on the plateau originated at water lifting machinery within the military district to the N (*PR* 6, 101). Two drainage systems were also traced (Fig. 8.11), one (Brown's drain a) running S down A St and W along 3rd St towards the Christian building where it was 'lost', the other (b) supposedly running parallel with (a) along A St from around the 3rd St junction, skirting the bath and turning W along Main St to debouch through the Palmyrene Gate (*PR* 6, 89). This description of the A/3rd St drainage features is partly repeated in the account of the M7-M8 housing, which specifies that Brown's drain (a) went out of use, being closed off and replaced by the line of (b) (*PR* 6, 178-9). There seems to be confusion about which



Fig. 8.15. Fragment of hitherto undescribed geometric mosaic, patched and plastered over, on hypocaust floor of M7 bath room 3.

way these drains are supposed to have flowed on A St: (a) apparently to the S, but the parallel (b) to the N. And how did the piped water supply cross the drain line(s) to reach the bath? There must be a suspicion of garbling of evidence and misinterpretation here, seen in multiple other aspects of the bath's archaeology.

Brown felt able to infer much of the design of the hydraulic system supplying the pools within the building. It was supposedly based on two superimposed reservoirs at R, against the S end of *frigidarium* F, at the point where the piped supply entered the site. A complex system of pipes, secondary tanks, and apparently an inverted siphon distributed water round the facility (PR 6, 88–9). However, there are reasons to think that much of this complexity reflects Brown's conflation of two successive, radically different water systems, which may be linked with other curious features to suggest that the building underwent major renovation, or even substantial rebuilding during its life.

Brown mentioned springing surviving for a vault over the pool at the end of room 1 (PR 6, 85–6; Fig. 8.13), but did not explain that it was really too low for the pool to be usable. Perhaps the room 1 pool had subsequently been turned into the foundation of a raised reservoir, echoing Brown's supposed 'superimposed reservoirs' at R. The most economical explanation is that at R and the room 1 pool we see imposition on the original plan of a new and very different hydraulic scheme. A major reworking of the bath may also

explain its three different furnaces, which seems excessive. Perhaps that originally serving room 1 was replaced by that heating room 2. Brown also recorded clearly different brick-face concrete building styles in the E and W halves of the building (PR 6, 85). He attributed this to two different builders working in parallel, but it is more likely that half of the structure had been rebuilt. Such an event could also explain why apparently only half the colonnade has a stylobate (being either partly rebuilt or extended), and why there were two drainage systems. A similar phenomenon at E3 is also now explained as reflecting a major rebuild involving complete reconfiguration of water supply and waste management. It may be suggested that originally the bath occupied the site of a small civil house at the NE corner of the block, with that of another to the S forming its service yard. Subsequently it was enlarged to the W, involving takeover and partial demolition of house M7-B, providing space for additional service rooms B and B' (with the Main St colonnade lengthened in front of them), and an enlarged and rebuilt heated suite with a new *praefurnium* in the house court. Such a sequence would explain why the bath seems to have two non-communicating service yards, and two successive, different drainage systems.

Pending opportunity to re-examine the site, there are multiple reasons to propose that the history of the M7 bath was much more complex than Brown realized, and potentially stood longer than he envisaged. It may be that, as at the F3

bath, provision of a piped water supply marked major refurbishment of the facility, rather than its foundation.

L4: A MILITARY-RELATED FACILITY?

Block L4 (Plate XXII at Y; Fig. 8.16), on the N side of Main St between B and C Sts, midway between the Palmyrene Gate and the agora, clearly relates in form to the market zone as it entirely comprises multiple cells best identified as shops and/or workshops. However, is noteworthy for its unusual regularity, one of several features which lead to the suggestion here that it was built both by, and probably at least partly for the needs of, the garrison.

L4 was not excavated—even the usual trenching to define its outline was omitted except on its Main St frontage. However, this was apparently because its unusually regular

layout, and equally unusually clear surface indications which even revealed butt joints of walls and door blockings, permitted its plan to be drawn, apparently complete, although the thresholds shown must mostly be reasonable inferences (archive drawing L4 block N.2). The accuracy of this is confirmed by magnetometry (Pl. VIII). The plan was accompanied in the archive by an anonymous and undated four-page typescript ‘preliminary study’ of the block, apparently by Pearson (Baird pers. comm.).

The archive text reasonably observed that the layout suggests it was built as a single conception, ‘in the second or third century AD’, implying complete demolition and removal of earlier buildings. It suggested this was ‘more the enterprize [sic] of a municipality or a corporation than of an individual’, perhaps ‘an organisation of merchants’—but did not suspect the garrison might have been responsible. However, it noted that the layout was narrower than a

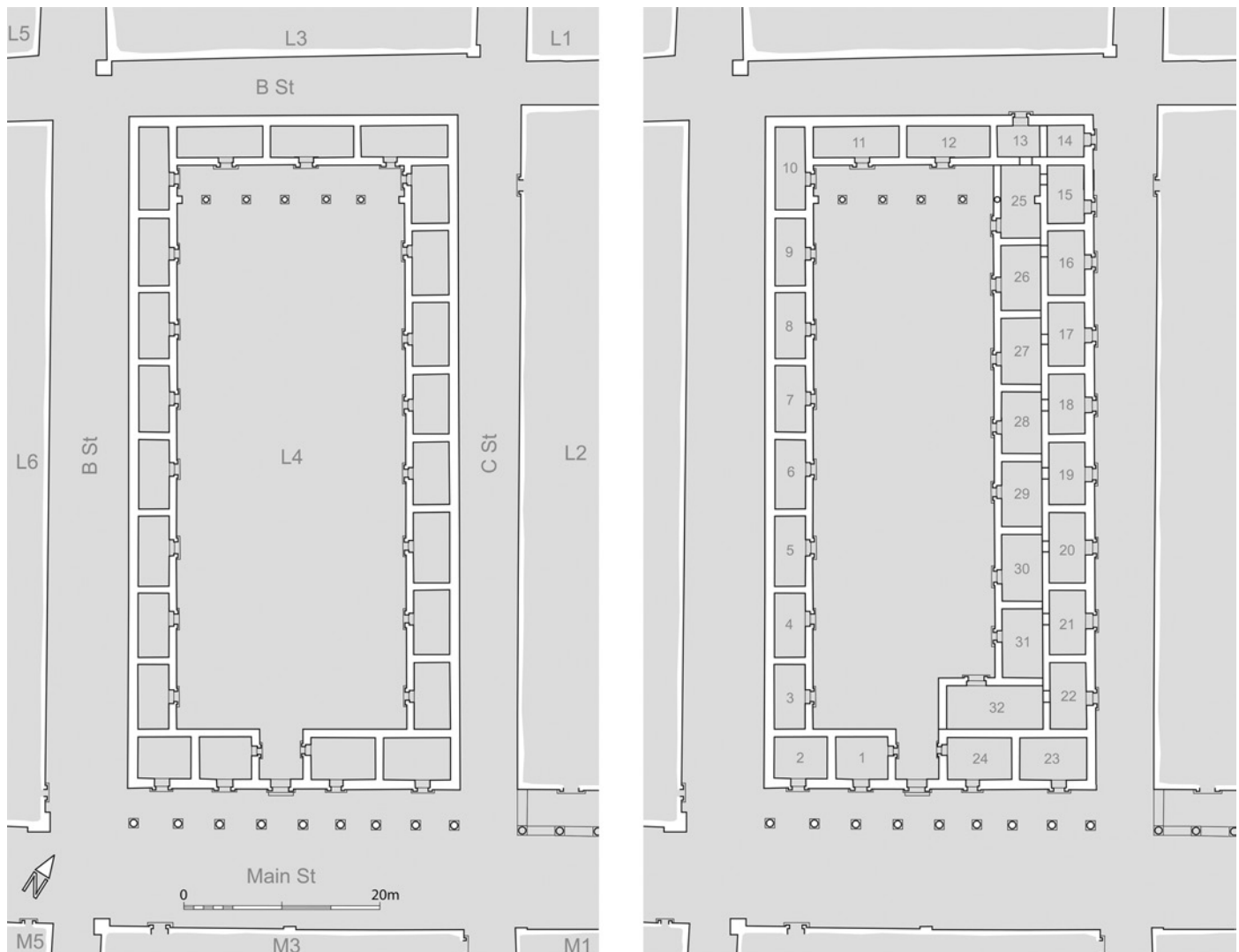


Fig. 8.16. The two phases of construction in L4, recorded in the archival plan of features visible in the surface of this unexcavated block.

'normal' block, B St on its W side being 8.4m wide instead of the more usual 5–6m. L4 was also shorter, to accommodate a colonnade along Main St without encroaching on the carriageway. 'It may be that the widening of Street B follows some late project of urbanization since one of the gates of the Roman camp is on this street, giving it more importance than formerly, or it is possible that some function of the building required exterior space which was thus achieved.'

Drawing and typescript identify two distinct phases. The first comprised a roughly symmetrical arrangement of cells. Except for rooms 1, 2, 23, and 24 which faced onto a colonnade on Main St and were described as 'certainly shops open to the passing traffic', all the units faced onto the large central courtyard. This main arrangement, with a single entrance and blank walls around the other three sides of the block, was hypothesized to have 'served as a warehouse for merchants or as an enclosed market'. The second phase saw an additional range of rooms built along the E side of the courtyard, with the existing E range of rooms reorientated through blocking of its old doorways and cutting of new ones facing onto C St. The proposed reason was 'to furnish exterior shops'.

Drawing parallels with 'khans' of mid-twentieth-century Damascus, it was proposed that L4 was a warehouse or organized market: 'Nowhere yet in Dura had been found such a building although they were indispensable.' L4 appears labelled as a 'khan' in Rostovtzeff's 1938 (fig. 6, no. 22) map of the city. More recently it has been listed among the 'shops and workshops...identified along Main street' (Coqueugniot 2011, 307).

A striking feature of L4 is that this single arrangement of shops/workshops occupies an entire regular city block; all others occupy parts of blocks (the closest parallel being the court in the N half of G6) or they just line street frontages of blocks containing residences as well. In the Roman era, there are no other identified examples of the civic authorities entirely clearing a block and rebuilding *de novo*. However, the garrison did build new block-sized structures, not least the Roman Palace. Even more striking is L4's notably orthogonal regularity, unmatched by any other part of the central commercial district or indeed by much else at Dura, apart from official Roman military buildings such as the *principia* and the heated suites of the baths. It is likely that L4 was also built by the garrison.

Another indication of military association of this is that L4, sitting on Main St, was located next to the entrance into B St which led straight to the gate through the camp wall and the concentration of putative military granaries—and notably this stretch of B St was widened. The layout of the block also always presented a blank wall to B St, keeping it clear of the obstructions and traffic to be inferred outside the units opening onto C St. Is it proposed that L4 was associated with the garrison's needs for supply of materials and manufactured goods. Close to the service gate of the base, it was perhaps where incoming shipments of supplies were

sorted, checked, accounted, and perhaps paid for. Was it also perhaps where specialist Durene artisans serving the needs of the garrison congregated? In short, was it some kind of dedicated military market? Could this have been the equivalent of the base's 'missing' military *fabrica* (p. 285)?

The archive typescript also noted that L2, between L4 and the main agora, had acquired a nine-column street portico like L4's, leading the writer to speculate that L2 was a second 'khan' and that 'It is therefore probable that the whole quarter was the source of merchants supplies', i.e. serving the adjacent agora. However, magnetometry indicates that L2 combined probable houses in its N part with shops and a smaller courtyard in its S part, much more closely resembling the excavated agora blocks to its E. Still, L2's Main St colonnade, and the row of shops it fronted, could also have been built by the military at the same time as L4, constituting a scheme analogous to the pushing back of the street frontage and portico building on 10th St at E5.

SOLDIERS AND MILITARY DEPENDANTS RESIDENT OUTSIDE THE BASE AREA

Evidence of military presence outside the base area was not strictly part of the project, but requires brief discussion as part of the contextual picture.

Evidence of military occupation was noted, for example, in block C7 right in the centre of the civil town by the great Main/H St junction (Pl. XXIII, e; Baird 2011, 236–43). However, this is largely in the form of artefacts and graffiti rather than the patterns of spatial division and conversion seen inside the base proper, and more likely represents the situation after 253, with the military spreading out to strategic points across an urban landscape otherwise already abandoned by its civil population (Baird 2012b, 319–10).

More persuasive traces of soldiers living out in the town before the upheavals of the 250s come from buildings buried by the anti-siege rampart, notably in M8. Latin and Greek military dipinti were found on fallen plaster fragments from the wall between M8-J1 and K2 (Pl. XXIII, a; *PR* 6, 176–7, nos. 695, 696). Another was found nearby, 'between M8 [house] L and M8-K2', named *legio IV Scythica* (*PR* 6, 178, no. 697; Pollard 2000, 55). Interestingly, this suggests soldiers were residing next door to the Christian building before the rampart was built. However, the best evidence comes from block L7.

L7-A The 'House of the Roman Scribes'

Especially interesting is the so-called 'House of the Roman Scribes', L7-A, close to the synagogue (Pl. XXIII, b; Figs 8.17 and 8.18; *PR* 6, 265–308; du Mesnil 1933, 194). Backing

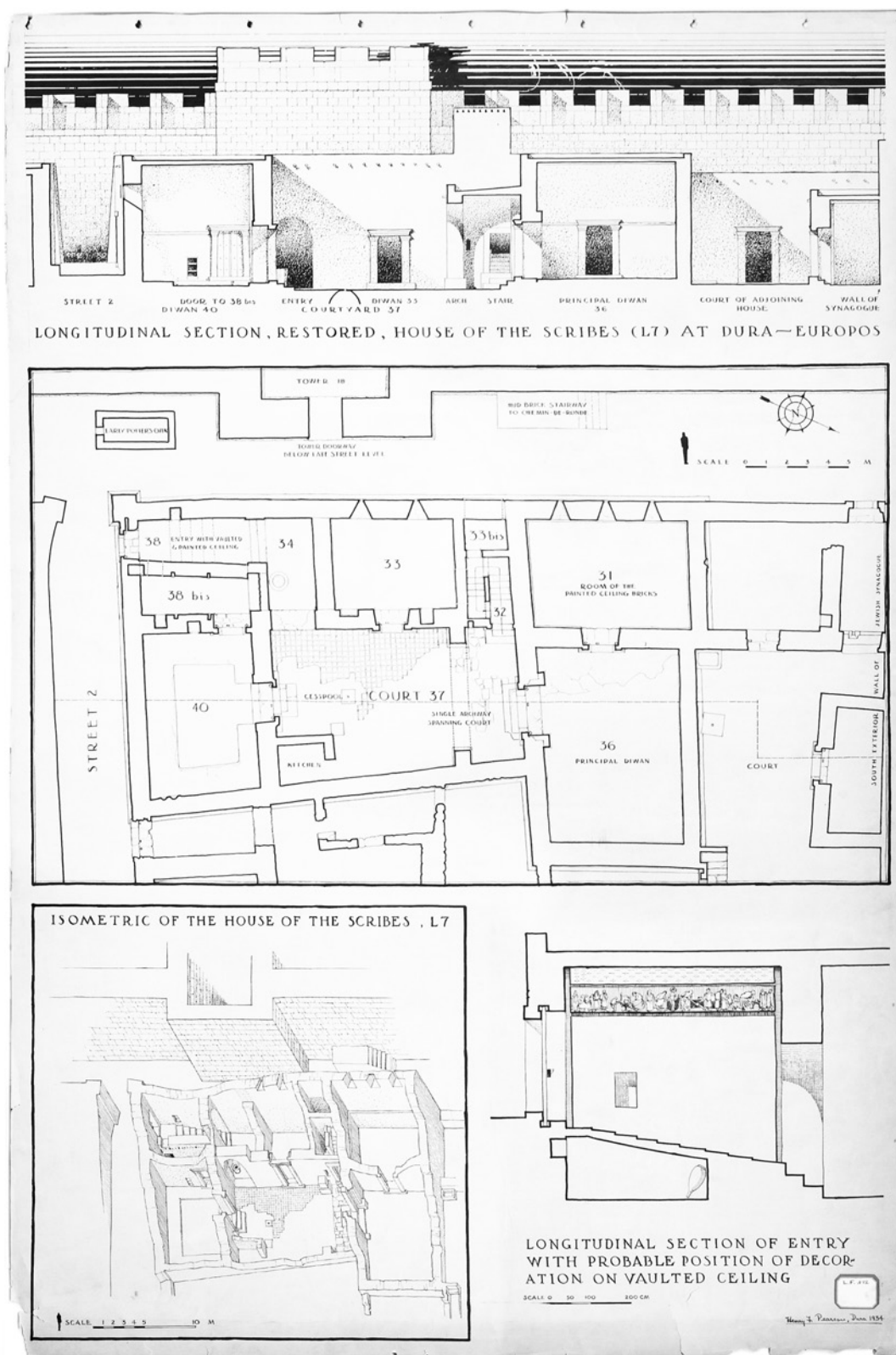


Fig. 8.17. Pearson's archival drawing comprising reconstructed elevations, plan, and isometric of state of preservation of the L7-A 'House of the Roman Scribes'.

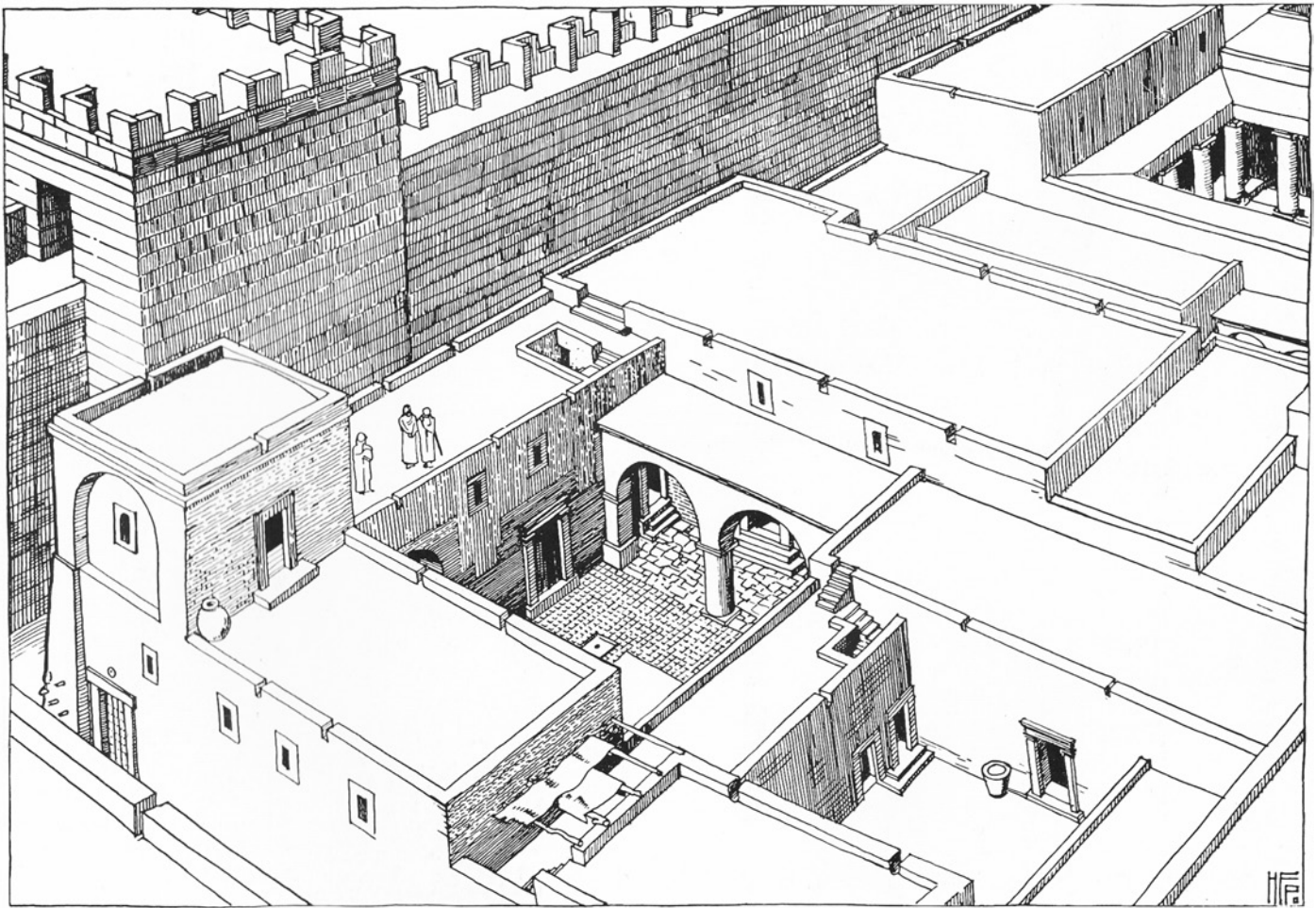


Fig. 8.18. Reconstruction of Roman-era L7-A 'House of the Roman Scribes'; drawing by Henry Pearson.

onto Wall St and partly preserved by the earth rampart, this house was thought to have been the permanent residence of a group of Roman soldiers, including Heliodorus the *actuar-ius*, or military clerk (PR 6, 291–2; Baird 2014, 138). His portrait, name, and title were found on one of a number of rectangular painted plaster blocks recovered from the house (Pl. II), several more of which bear named portraits of other junior military officials, including Masimus the architect (PR 6, 265, 298). These were ceiling panels, originally set between rafters.

The excavators proposed that a group of *immunes*, soldiers with specialist skills and duties, perhaps especially associated with the military presence at the Palmyrene Gate, had purchased the house as a residence (PR 6, 274, 301–2). This was thought to broadly coincide with renovation of the house to include fired brick courtyard paving (PR 6, 274), and erection of a brick-vaulted, partial upper storey with classicizing wall paintings above L7-38 and 38a (Fig. 8.19; PR 6, 266–9; Baird 2014, 95, 141)—alien features at Dura consistent with

military involvement. The house was also extended, by acquisition from the neighbouring house L7-B of rooms L7-A31 and 36 (PR 6, 275). The painted ceiling blocks were found in these two rooms, albeit apparently in different circumstances. Some 115 more or less complete blocks, some with human portraits, others with gods, plant motifs, or plain, were found in room 31, presumably on the floor or in its fill, while 'eight more bricks with the same or similar designs', including that bearing the portrait of Masimus, 'were found under the floor of *diwan* 36, directly in front of the door to 31' (PR 6, 283–308). Further, the blocks had been cut down from their original square shape, apparently some time after manufacture (PR 6, 274; Baird 2014, 138 n. 123). That some were found sealed under the floor of the adjacent room effectively proves that the blocks found in room 31 really belonged to the house, and were not just material from elsewhere stacked in 31 during rampart construction. Cutting down of the blocks could have been a result of the military group acquiring and

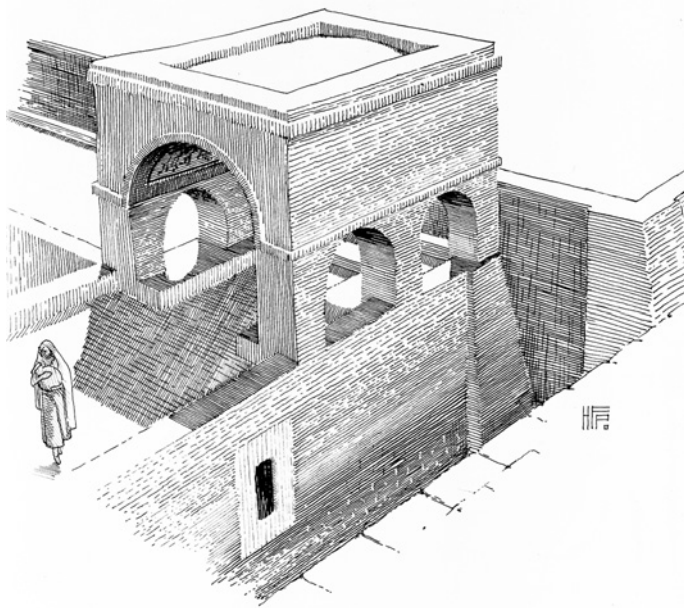


Fig. 8.19. Vaulted Roman-era superstructure above entrance to L7-A? 'House of the Roman Scribes', seen from the city wall walk. Drawing by Henry Pearson.

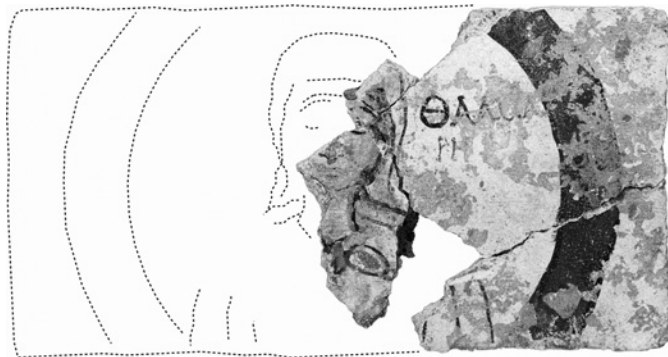


Fig. 8.20. Plaster ceiling panel from L7-A 'House of the Roman Scribes', with portrait of a woman labelled Thaamare.

modifying the house bringing the panels with them from elsewhere, trimming them to fit the narrower beam spacing of room 31.

L7-A gives exceptional evidence for what seems to be a multiple-household military residence. Interestingly, the ceiling-panel portraits include a woman, Thaamare (Fig. 8.20: *PR* 6, 283–303), here suggested to have been a member of a soldier's *familia*.

The 'House of Entertainers/Military Brothel', House G5-C

In room 2 of a small house on the N side of the agora/bazaar district, G5-C (Pl. XXIII, d), a plaster relief of Aphrodite was

found, with dipinti interpreted as attesting a body of entertainers and prostitutes (*PR* 9.1, 115–18, 166–7, and nos. 940 and 941, 203–65, pl. XIX). The house is generally seen as effectively a military-run brothel, staffed by army-owned slaves (Pollard 2000, 53–4). It was suitably located for this, on the N edge of the agora district close to F St, at almost the closest point to the direct route into the military base.

A Spurious Case: The 'House of Julius Terentius', G7-H

This small house on the N edge of the agora district (Pl. XXIII, c) is still often said to be the residence of the tribune of *cohors XX Palmyrenorum*, Julius Terentius (e.g. Stoll 2001, 90). Its association with Terentius is entirely dependent on the discovery of his epitaph in court G7-H1 (Welles 1941; *PR* 9.1, 176–85, no. 939, pl. XXI). Yet this was not even found *in situ*. The small slab was likely originally set up on a tomb in the necropolis. Its presence within the city walls may be explained as a result of its rescuing by associates of the deceased when the cemetery was slighted, perhaps in advance of the Sasanian assault to deny cover to the attackers: if they had survived the 160 earthquake, it is likely that the tower tombs in the necropolis were demolished at that time. Or the stone may simply have been taken by someone as useful building material; other military tombstones appear to have been used in this manner (*PR* 9.1, 181). In any case, it is hardly plausible that the equestrian commander of a Roman auxiliary unit, accompanied by his family (his wife Aurelia Arria set up his epitaph), would have lived in such a modest house almost next door to a military brothel, and outside the military base which boasted far more suitable accommodation within.

CITY WALLS: GATES, CURTAIN, TOWERS, AND STAIRS

The military base area was defined to W, N, and E by the city walls and the Citadel (Figs 5.1, 6.1, and 7.1). Unsurprisingly, there was a major military presence at the great Palmyrene Gate, (Plate XXII; Fig. 8.21) attested by recovered and still *in situ* texts, and the same may be presumed for the other main portal through the defences, the now-lost River Gate. It is to be presumed that the towers and curtain comprising the rest of the wall circuit around the civil town was also routinely manned, if sometimes only lightly, by the soldiers.

Dura's urban defences have been extensively studied, in general (von Gerkan 1936), and specific aspects, e.g. the mud-brick element in the NW (Leriche 1986). A major part of the perimeter on the river side was formed by the Citadel (p. 199). In addition to the two main city gates, there was a small gate between Towers 8 and 9 at the S extremity of the city giving access to the S wadi (Bertolino and Abd el Aziz

2004). A blocked secondary gate, a simple arched portal which in the Roman period had a mud-brick access stair built across it, lay S of the Palmyrene Gate ('Abdul Massih 1997). There were also two posterns in the area which became the military base (below).

Around the circuit the positions of twenty-four wall towers are known, mostly orthogonal and projecting. If we include 'Towers' 3 and 4 which are actually projections created by angles in the defensive curtain, the total is twenty-six, or twenty-seven if the proposed mirror image of 4 beside the Roman Palace bath formed another. There were probably at least another couple of conventional projecting towers covering the relatively exposed, lower-lying SE corner of the circuit, lost with the River Gate. The Roman garrison presumably took control of all the circuit and towers, and certainly occupied the lower levels of those within the base area which were accessible. However, S of Tower 21, the depth of deposits accumulated in Wall St seems to have buried the ground-level tower entrances before Roman times—a major reason the garrison built additional access stairs.

The Walls around the Military Base

The mud-brick 'camp wall' (Fig. 5.1) ran off the western defences just S of Tower 21, which likely had an important function keeping the camp wall line under surveillance. Beam holes in the walls of the tower show that military accommodation was built up against it. Moving N, at Tower 22 adjacent walls plotted in the 1930s and beam holes on its E face imply its ground floor was used as part of adjacent military accommodation in block J8, as was the next stone tower, 24, in block J7. The intermediate Tower 23 was an external addition covering the junction between stone and mud-brick curtain, and was not accessible from the base interior. Neither were the similar Towers 25 and 26 added to the mud-brick curtain between the stone Towers 24 and 1. Today there is a large gap through the defences between them, but this is a post-abandonment feature, made to permit passage of the Ottoman road; study of surviving traces of the foundation of the defences indicates that there was no gate here in antiquity (P. Leriche, pers. comm.). At the N end of the W defences, the great corner tower, Tower 1, was also effectively an integral part of the Temple of Bêl.

Turning E, along the N wadi-edge defences stood the massive Tower 2 (The 'Tower of the Archers'), which protected a small postern gate, apparently the only maintained route through the urban perimeter in the military base area, practicable only to pedestrians and perhaps mules ascending the N wadi. E of this point (Fig. 6.1), the defences appear originally to have run on a straight line to the point opposite the N tip of block E3. However, much of this stretch collapsed, apparently in the earthquake of 160, and had to be replaced on a new line slightly to the S. A surviving stretch of

the old defensive wall was consolidated as 'Tower 3', which was probably also used as part of the Temple of Azzanath-kona. N of the re-entrant corner, the defences made a shallow double 'dog-leg' ('Tower 4'), and then zigzagged to the square Tower 5, the northernmost point of the city, dominating the mouth of the N wadi, and overlooking the slightly in-curving river-cliff line to its E. Presumably in or close to Tower 5 lay the machinery, of uncertain type, used to raise water from the river for the arched aqueduct to the E3 bath, and the piped supplies located in the upper town.

Defences had originally been built along the river cliff edge all the way to the great quarry/dry moat cut to separate the Citadel from the plateau (Fig. 6.1). This was discussed in detail above as its conformation is crucial to reconstructing the river facade of the Roman Palace (pp. 164–167). It originally incorporated another square projecting tower (now labelled 5a). Much of the wall on this stretch has been lost to the Euphrates, perhaps due to the 160 earthquake shortly



Fig. 8.21. The Palmyrene Gate in 2007: top, external view. The foot of the late anti-siege mud-brick glacis around the gate has been reconstructed. Behind it, L of the gate structure, part of the wall of the gate forecourt can be seen upstanding. Bottom, interior view of the gate looking along Main St, with the M7 bath at L.

before the Roman takeover. If so, it seems that the Roman garrison regarded the steepness of the river cliff, and perhaps proximity of the river, as adequate protection. The same was likely true of the river side of the Citadel, also perhaps reduced by collapse in 160 (Fig. 7.1).

A number of mud-brick stairs were added to the back of the curtain walls around the city, to improve access to the wall-walk and towers; at least three were in the military base area. One was built across the blocked postern through the rock-cut city wall in the quarried area overshadowed by the N end of the Citadel (Figs 6.9 and 7.1). Another ascended from beside the Temple of Bêl (Figs 5.1 and 5.2), the third lay just S of Tower 21 (Figs 5.58 and 5.59). Interestingly the

latter was accessed from Wall St outside the camp wall, and ascending over it. This stair was stratigraphically later than the camp wall. Gelin suggests these stairs dated to the 230s (Gelin 2000, 321, 335), prompted by the emergent threat from the new Sasanian empire.

Palmyrene Gate

The large projecting gate structure forming the W end of main St was, during the Roman era, the only gate opening onto the plateau (Figs 8.21 and 8.22). It led to the west-bank Euphrates road, and so to communications with N Syria and W across the steppe to Palmyra (although curiously, despite

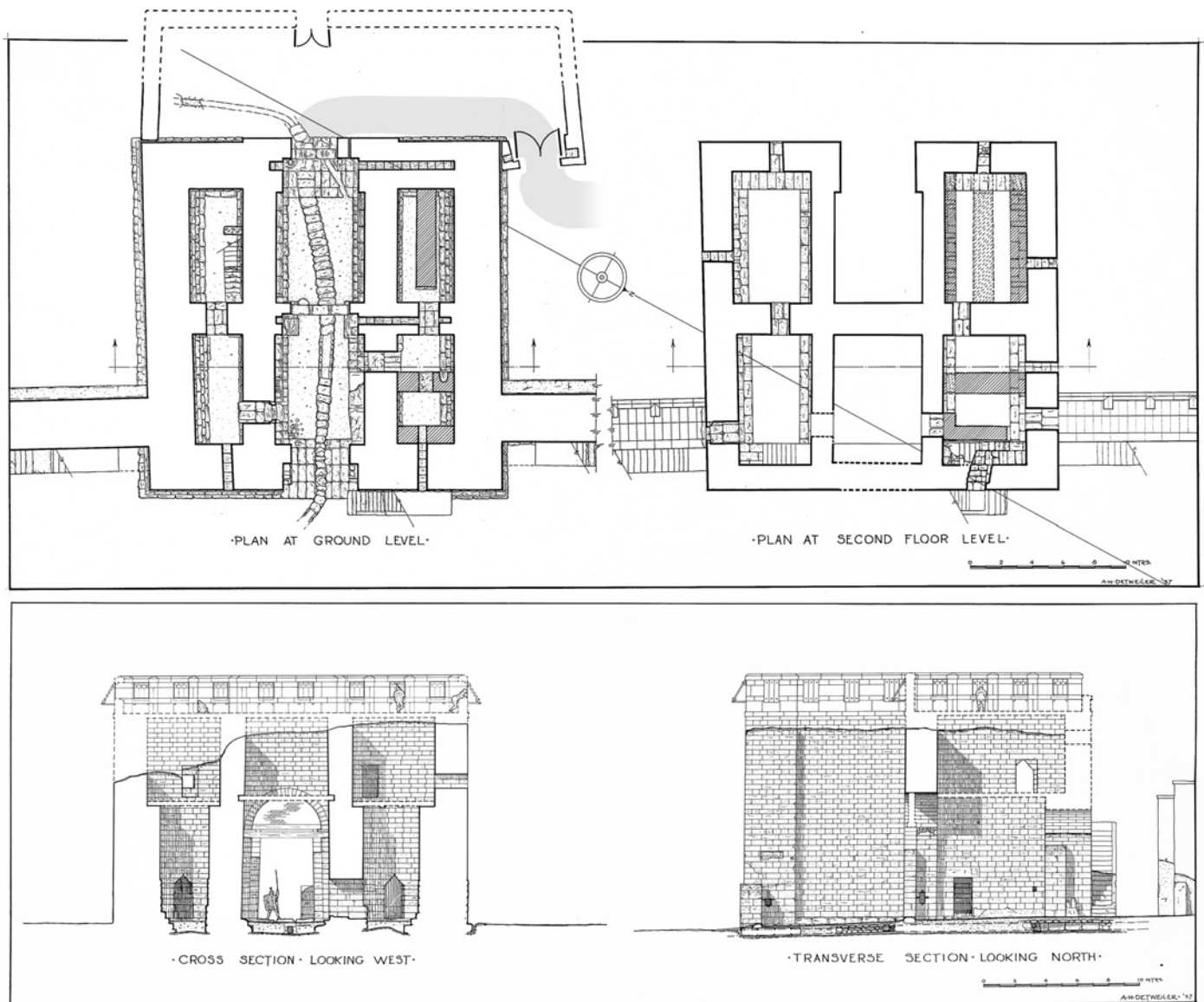


Fig. 8.22. Archive plans and elevations of the Palmyrene Gate by Henry Detweiler, with addition of extent of forecourt and main entrance route after Gelin et al. 1997, fig. 33.

the close connections between the two cities, no clearly defined Dura-Palmyra road has been identified). It is conventionally known as the Palmyrene Gate. While not a contiguous part of the military base area, excavation of the gate produced vital evidence for the pre-siege garrison and its activities, in the form of inscribed altars and texts on its walls left by soldiers (below).

On the structural history of the gate, built in the second century BC, see Gelin et al. (1997). For the original excavation and publication of the inscriptions, see *PR 1* (Pillet: 4–7, 10–22; Rostovtzeff on inscriptions: 30–60; Torrey on Palmyrene texts: 61–4; Cumont on the Nemesis relief and ‘altar with graffiti’: 65–71), *PR 2* (Pillet: 6–9, 70–1; Johnson on inscriptions: 114–60), *PR 3* (36–7, by Rostovtzeff), and *PR 6* (206–9, by Hopkins). It was also briefly discussed in von Gerkan’s survey of the defensive circuit, where he noted the ‘misalignment’ of the curtain walls N and S of the Palmyrene Gate, and proposed that this reflected a very different initial gate layout, incorporating a tight ‘Z’-bend passage way, hindering potential assault (*PR 7/8*, 6; Fig. 8.23). However, there is no indication that this was ever actually built, the plan being changed to the grander edifice with straight passage which still survives. Nevertheless, at some stage in the Parthian era, a walled forecourt was added to the great gate which, while it apparently had a secondary gate allowing axial entry, also had a side gate obliging traffic to make two 90° turns to enter the city. This forecourt appears to have remained in use with further modifications during the Roman period (Gelin et al. 1997, 45–6, fig. 33; Fig. 8.22). These observations have implications for understanding the lost River Gate (below).

Rostovtzeff saw the Palmyrene Gate as the focus of a subsidiary military camp (Rostovtzeff 1938, 25). This appears an exaggeration, but the finds from the gate itself, proximity of the M7 bath probably, the structure in L4 perhaps, and the L7-A ‘House of the Roman Scribes’

certainly, reflect a concentration of military activity around this entrance to the city.

The almost 200 texts recorded in the gate (*PR 1*, 30–60; *PR 2*, 114–61), mostly on the walls, were overwhelmingly in Greek, with a few in Palmyrene or Latin. Many are self-commemorations of soldiers holding the position of *stator* or *beneficiarius tribuni* acting as police officials scrutinizing traffic coming through the gate (Figs 8.24 and 8.25). One mentions the Tyche of Doura (*PR 1*, 41, no. C3; Fig. 8.27).

The inner (city-side) part of the long gate passage appears to have constituted a small shrine area. A group of altars and incense burners, much added to and altered over time, stood on the S side flanking the door to the S rooms of the tower (*PR 2*, 155). At L of the door was a pedestal with cornice, but no trace of an inscription survived. R of entrance stood three ‘little altars’ side by side, and a small portable *thymiaterion* (Figs 8.25 and 8.26; *PR 1*, 19–21, pl. II.2). One of these altars was dedicated to Commodus by *cohors II Ulpia* (*PR 1*, 42–7, altar 1). This cluster of altars seems to have comprised a

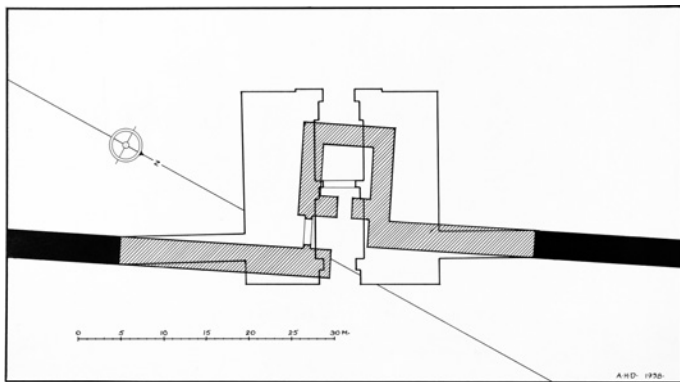


Fig. 8.23. Von Gerkan’s interpretation of the development of the Palmyrene Gate design, drawn by Detweiler.



Fig. 8.24. Inscribed and painted military texts inside the Palmyrene Gate.



Fig. 8.25. Military altars and graffiti on the walls of the Palmyrene Gate carriageway.

roadside military shrine, comparable to that outside the X7 'Dolicheneum'.

Stoll saw the Palmyrene Gate as accommodating a soldiers' sanctuary to the Tyche/Gad of Dura, noting that in much of the Middle East Tyche took over the function of the *genius* of the place more usually responsible for protecting soldiers in other frontier regions (Stoll 2001, 315–18, 434).

The excavators believed that religious scenes may also have been painted on the walls of the passage. It was suggested that a wooden plaque found in the gate, dedicated to the *strategos* of the city and his family by 'decurions of the cohort', may have been in thanks for his sponsorship of such scenes (PR 2, 148–51, fig. 23; Yale 1929.370).

Finally, there were a number of other pieces, including a relief of Hercules, an inscribed relief to Nemesis (Fig. 8.28; PR 1, 19, pl. IV.I, dated 228), a small stele with a crude head

and inscription to 'Komodos' (PR 1, 48–9, no. 3, fig. 22), and a broken tombstone of the centurion C. Julius Rufinus of *Legio IV Scythica*, set up by his friend Caesius Domitianus. This last was 'carried into the tower at a later period' (PR 1, 21, 49, fig. 23), likely brought in from the necropolis as constructional materials during the siege preparations; the presence of the other two pieces may have the same explanation.

River Gate (or Water Gate)

The relative grandeur and textual riches of the Palmyrene Gate have distracted scholars from the likelihood that the city's other main entrance, long since completely erased by the force of the Euphrates, was far more important to the civil population and indeed the garrison. It led to the



Fig. 8.26. Altar to Commodus set up inside the Palmyrene Gate.



Fig. 8.27. Inscription C3 to the Tyche of Dura on the N wall of the carriageway through the Palmyrene Gate. Lettering c.40mm high, painted red on discovery.



Fig. 8.28. Relief depicting Nemesis, Palmyrene Gate.

principal source of sustenance for human life in the city: the Euphrates which provided almost all its water and also its foodstuffs, through watering the fertile local plain and probably via boat shipments from upstream. It also provided much of the city's building materials and fuel in the forms of mud brick and wood, as well as providing communications N to the Khabur valley and the heartland of Syria, and S towards Anath, Hit, and so to Babylonia. This other gate is to be identified as the *porta aquaria* listed among the points guarded by men of *cohors XX Palmyrenorum* (e.g. *P. Dura* 106.13; 107.ii.10, with the *porta praetoriana* also mentioned probably being the Palmyrene Gate: *P. Dura* 106.6; 107.ii.11). It was doubtless also embellished with graffiti by the *beneficarii* and *statores* on duty there. They likely had far more traffic to deal with than the men at the Palmyrene Gate, as all farm produce, all river freight, and much of the city's water brought in by pack animals, had to enter this way. Presumably many townsfolk streamed out the other way to work in nearby fields, tend pastured animals, to wash clothes on the river bank, and work on industrial tasks like making mud brick.

There is controversy regarding the exact siting of the River Gate, which the Yale expedition believed had stood close to block B2 on the line of what they designated lower Main St. Leriche observes that the proposed position would still have



Fig. 8.29. Main St, the principal cross-city through route, with hypothetical reconstruction of the lost River Gate. Inset: elevation view from across the river, showing an approach ramp ascending under the SE city walls and towers to the level of the lower town.

stood about 14m above the river plain, in his view demanding an impossibly steep approach road; he proposed a site further S, via a different internal road (Leriche 1997b, 201–5). However, the evidence does not seem to allow for any major road running S past the C3 bath, into a zone apparently characterized by smaller lanes. Rather, the most likely solution is that the River Gate was indeed roughly where previously thought, i.e. on or close to the projected line of Main St and the Palmyrene Gate, but that its line of approach—like that

to the Palmyrene Gate in its initial design, and in practice for much of its history—was set roughly perpendicular to the axis of Main St, commanding the top of a sloping approach road, running below and parallel with the city wall. A hypothetical reconstruction, featuring a gate of the same plan as the Palmyrene Gate, is offered in Fig. 8.29. A variant might be a construction on the same axis and orientation as the Palmyrene Gate, but with an L-shaped passage as apparently originally planned for the W gate (above, p. 233).

PART III

A New Picture of Garrison, Base, and City

PREVIEW OF MAIN CONCLUSIONS ABOUT BASE AND GARRISON COMMUNITY

Having completed a detailed examination of the archaeology of the military base area, it is now time to bring in the text-derived evidence for who lived and worked in it, and to use both to work towards synthesis and interpretation. A consideration of the results of a parallel review of the epigraphic and papyrological evidence for the evolution and composition of Dura's garrison community is followed by a wide-field view of the extent and conformation of their base, and of its development over time. This in turn forms the basis for considering how the military community and base zone functioned; and finally for exploring the implications of all this for understanding the impact of the military on the city and civil population.

To preview some of the main conclusions of the study, it will be argued that in several crucial respects, the picture of the base formed by the Yale expedition is demonstrably or almost certainly wrong, and also seriously incomplete—and that this profoundly misled the original excavators, and subsequent commentators.

To begin with, the contiguous Roman military base occupied during the first half of the third century AD was significantly larger even than Rostovtzeff and the Yale/French Academy expedition realized. The 'military quarter' literally occupied at least that much of the intramural area, and could have covered nearer a third.

Further, the third-century base was not mainly a sudden, massive new creation of the years around 209–12, as the excavators argued, and as commentators have continued to accept. There are multiple archaeological indications that it had already grown large over the preceding forty years, and that this was not the result of any single, traumatic event; rather it was incremental, probably comprising several spaced episodes. The epigraphically attested construction programme c.210 rather marked reconfiguration and greater formalization of an existing base, which may have seen little or no expansion of its area: it marked qualitative rather than quantitative change. The evidence of the inscriptions has misled at Dura, in the same way that Hadrian's Wall was long thought to have been a creation of Septimius Severus, because of the large number of Severan inscriptions recovered (Ian Haynes, pers. comm.).

This very different picture of the base drawn from archaeological evidence fits well with the results of a parallel

review of the textual evidence for the changing composition and size of Dura's garrison over time (below). It concludes that the Roman force based at Dura in the second century was probably already much larger than previously generally believed, and by the early 190s already comprised a force of up to 2,000 auxiliaries. The epigraphic record does indeed reveal a major garrison reorganization as well as a building programme in the years around 210, but this does not indicate the massive expansion which Rostovtzeff and most subsequent writers have believed. Rather it represented replacement of part of the long-established auxiliary force with a body of legionaries, creating a new mixed garrison; again, qualitative rather than quantitative change resonating with the new archaeological picture.

If the imperial forces stationed at Dura did not, after all, mushroom in numbers c.210, there is on the other hand good reason to believe that the total size of the military-associated population at Dura has always been seriously underestimated. Wider recent developments in our understandings of the Roman military as an empire-wide phenomenon, drawing on both textual and archaeological data, suggest that, especially during the later second and third centuries when the Dura base was occupied, bodies of *milites* were routinely accompanied by large numbers of dependants of all kinds. Most were much more closely integrated with the unit than the 'opportunistic hangers-on and motley camp followers' they have often been dismissed as being. There is every reason to conclude that Dura's garrison also supported these groups, which comprised another large, but hitherto barely noticed and certainly unquantified, additional component of Dura's demographic picture. Together soldiers and their dependants may be characterized as an 'extended military community'.

These conclusions have profound implications for the nature and dynamics of military-civilian interactions at Dura, which would not have been simply between an enclave of imperial soldiers and the urban population as hitherto widely thought. Further, it appears the bulk of the military presence did not arrive in one, sudden traumatic episode around 210, but rather as a series of arrivals and some departures over a period twice as long as hitherto envisaged—and so with much more time than previously realized for those interactions to play out. The work concludes with a consideration of what this all means for our understanding of Roman Dura.

Who Lived and Worked in the Base?

WHAT THE TEXTUAL RECORD TELLS US ABOUT THE GARRISON

Information about the specific imperial military contingents resident in the city, and their composition, comes from formal inscriptions, dipinti, graffiti, and Dura's famous papyri, including part of the archive of *cohors XX Palmyrenorum*. The case of Dura's garrison illustrates the validity of Millar's call for a general review of evidence and interpretations regarding Dura-Europos (Millar 1998, 474). While the inscriptions still remain to be definitively published, it is sixty years since *Final Report 5.1* on Dura's papyri appeared, during which there have been a further two generations of general scholarship on the Roman military. These have seen fundamental changes in understandings of the subject, while several publications on specific aspects of Dura's Roman military presence are also yet to be integrated into any wider reconsideration of garrison and city. Notably, Kennedy's work has substantially revised understandings of the chronology and development of one of the major garrison elements, *cohors XX Palmyrenorum* (Kennedy 1983; 1994), while Edwell has effectively demolished the long-established wisdom that the garrison was, in its later decades, under an officer called the *dux ripae*, supposedly a regional commander foreshadowing the territorial *duces* of the Dominate (Edwell 2008, 129–35). Dura's military presence also needs to be reconsidered against the background of broader recent developments in Roman military studies. Key is growing awareness of the importance of the 'extended military community', encompassing both soldiers and the many dependants who, it is now clear, routinely accompanied them. We will return to this aspect later.

A fundamental restudy of the textual evidence for Dura's Roman garrison is, then, overdue and needs to be undertaken by those with proper epigraphic expertise, but in its absence an interim review here is a necessary companion to the archaeological research on the base.

THE NATURE AND EXTENT OF THE TEXTUAL RECORD FOR THE GARRISON

Despite major subsequent discoveries such as the Vindolanda tablets (Bowman and Thomas 1983; 1994; 2003), the textual

record for the Roman garrison at Dura remains unsurpassed by any other site, in its combination of scale, diversity of media, and detail. Some 60 per cent of Fink's *Roman Military Records on Papyrus* comprised Durene documents (Fink 1971). However, this must not blind us to the fact that, as a sample of the body of military texts which once existed at Dura, it is still absolutely tiny and comprises far more holes than substance. The chances of survival and recovery mean that it gives us neither a complete nor a fully representative picture of the garrison's evolving size, composition, or activities. Dura's apparent textual riches really constitute a scatter of brilliant but slender shafts of light which dazzle because of a prevailing stygian gloom.

While in the 1980s an important additional find of third-century documents, some referring to military matters, was made somewhere in the general region of Dura (the 'Middle Euphrates papyri' (Cotton et al. 1995, 219–20, 222–3; Feissel and Gasco 1989; 1995; 2000; Feissel et al. 1997), at Dura itself no significant additions have been made to the corpus of texts since the excavations of the 1920s–1930s. These had exposed most major buildings and any inscriptions they contained, and almost entirely removed the steeply sloping, permanently dry deposits along the city walls which had protected and preserved papyri. In the absence of a *Final Report* on the inscriptions, the starting point for discussion of the textual data remains the 1959 overview of the garrison and its history by Gilliam in the volume on the parchments and papyri (*FR 5.1*, 24–6).

Considered as a whole, the textual record for Dura's garrison contains such large gaps that it is possible that other formations—small vexillations or even entire cohorts—could have resided at the city for periods of years without leaving a single surviving epigraphic trace. Indeed, in my view, this is almost certainly the case, in that we have no specific information regarding the formations (likely plural) trapped in the city at the time of the final siege c.256. Vexillations of *cohortes II Paphlagonum* (*FR 9.3*, 110–12, no. 971) and *II equestris* (? *FR 9.3*, 112–14, no. 972) are attested in 251 as Dura was becoming caught up in the massive wars with Sasanian Iran which would soon destroy it. There is reason to believe that the Roman garrison underwent a major disruption in c.252–3, which saw a massive Sasanian invasion of Syria

during which Shapur I took many cities, including Antioch. There are indications that the Sasanians may have briefly occupied Dura at this time, although this remains controversial (p. 36). Even if the city had been bypassed, it is likely that the provincial army (including all or most of the Dura garrison) was concentrated to oppose the invasion, being defeated in battle at Barballisus (James 1985). In 254 the emperor Valerian arrived in Syria to restore the situation (Millar 1993, 163), and Dura was back or still in Roman hands, with a garrison including 'the local vexillation' of *legio IV Scythica* (*P. Dura* 32), but with which other contingents? The long-established *cohors XX Palmyrenorum* is the obvious candidate, but no late reference exists. Had it survived the invasion of 252–3?

Given the limitations of the epigraphic record, even when supplemented by the parchments and papyri, we have to recognize that there is a great deal of basic uncertainty about the composition of the garrison over time. The military contingents of Dura could and did move around on timescales too short to trace fully through the fragmentary texts, which give us only a few fixed points over almost a century. Millar warned that 'these passing mentions cannot of course be made into a history of the garrison' (Millar 1993, 132). This is an important caution, although it should not be taken as a council of despair. If uncertainties will always remain, then, at least for the period preceding the chaotic 250s, from available evidence we can suggest a fairly well-defined range of plausible models or scenarios for the evolution of the military force resident at Dura, which other evidence, especially archaeology, allows us to test independently.

TEXTUAL EVIDENCE FOR MILITARY FORMATIONS AT DURA

Datable evidence for the Roman military presence is as follows, after Gilliam's synthesis in *Final Report* 5.1, 24–6 with additions, and problematic or ambiguous evidence in square brackets (see also Table 9.1):

- AD 169 and A formation of Palmyrene archers, strength
171: unspecified, attested by dedicatory inscriptions set up by two successive commanders (*strategoi*) in the Mithraeum (*PR* 7–8, 83–4, nos. 845–6). The date of no. 845 (Seleucid era 480), equates to AD 169, not 168 as normally given (Taylor 2001: I am grateful to Ted Kaizer for this reference).
- 193: *Cohors II Ulpia equitata*, on an altar in the Palmyrene Gate set up by one of its decurions (*PR* 1, 42–4). Gilliam rejected the initial reading 'cohors II Ulpia P[aphlagonum]', rightly as

texts recording both names prove these were two different units (*FR* 5.1, 24; Spaul 2000, 486). This inscription was dated by the expedition to 185–92 on the basis of the title *Commodiana*, but Speidel redated it to early 193, when Commodus was already dead but news had not yet reached Dura, the text subsequently being hidden by a layer of plaster (Speidel, M. P. 1993).

- 194: *Cohors II Ulpia equitata*, in a formal dipinto of the joint reign of Septimius Severus and Clodius Albinus, set up by *actuarius*...eus Mocimus under the cohort's tribune Trebius Maximus, in room W12 of the Temple of Azzanathkona (*PR* 5, 226–9, no. 561, pl. XXXII.2).
- [208: *Cohors XX Palmyrenorum*, first datable mention, in a papyrus docket assigning cavalry mounts, place unspecified: *P. Dura* 56A]
- 209–11: Vexillations of legions *IV Scythica* and *XVI Flavia Firma*; a dated inscription recording renovation of the Mithraeum, was dedicated by Antonius Valentinus, *centurio princeps praepositus* of the vexillations (*PR* 7–8, 85–6, no. 847).
- 211: Vexillations of legions *IV Scythica* and *XVI Flavia Firma* named on an altar to Jupiter Dolichenus by the entrance to the temple in block X7 ('Dolicheneum'), dedicated to their joint commander, Antonius Valentinus, by his freedman Agatocles (*FR* 9.3, 107–10, 130, no. 970).
- 211–12: Dedicatory inscription from a wide multi-statue plinth beside the entrance to the *aedes* of the *principia* only names Caracalla, with evidence for *damnatio* of Geta, which 'served to date the building to 211/212'; the fragmentary text thought to have named the dedicator(s) of this text was published as a separate inscription (Edwell 2008, 122: *PR* 5, 221–3, no. 558; 223–4, no. 559). Another inscription, on the tympanum over the southern axial door of the cross-hall, is reasonably taken to commemorate construction of the new HQ building (*PR* 5, 218–20, no. 556). It is fragmentary, but enough survived to conclude this is a dedication of building work under a Severan emperor, with Caracalla the most likely from the context, on which basis it has been dated to 211. The last line, which appears to have ended with the word '*Antoniniana*' interpreted by the excavators as a military unit

- title, was unfortunately otherwise obliterated. On the basis of other inscriptions found in the building, the excavators reconstructed it, and an entirely lost following line, as listing vexillations of *III Cyrenaica*, *IV Scythica*, and *III Gallica* (PR 5, 220). This was, however, highly speculative (Edwell 2008, 120–2). The other *III Cyrenaica* and *III Gallica* texts from the *principia* are clearly secondary and say nothing about construction of the building. Undated graffiti in the *principia* attest *leg(io) III Gall(ica)* (PR 5, 229–30, no. 562; Edwell 2008, 123 n. 175), and a *Legio X*, which the excavators suggested referred to *X Fretensis*, although Edwell thought it might mean *X Gallica* (PR 5, 230, no. 563; Edwell 2008, 123 n. 175). At the time of preliminary publication, the ‘Middle Mithraeum’ and Dolichenus texts (above) had not been found; these both attest vexillations of legions *IV Scythica* and *XVI Flavia Firma* as comprising the legionary presence c.211. It is therefore most likely that these contingents also built the *principia*.
- [c.209–12?]: *Cohors II Ulpia equitata civium Romanorum sagittariorum*, recorded on the dedicatory altar inscription in the A1 Military Temple marking its construction when the *campus* was expanded (*adampliato*: PR 2, 83–6, inscription H1). This is undated. However, the inscription provides important clues to its general context. The text was set up under ‘Ces...’ a centurion of *IV Scythica* acting as *praepositus numerorum*, the other unit(s) under his command not being specified, but plausibly a vexillation of *IV Scythica* perhaps paired, as above, with one from *XVI Flavia Firma* as well as these auxiliaries. This is a different commander, and attests apparently slightly different command arrangements, from those in the Mithraeum and Dolichenus altar texts of c.209–11. However, it is very probably from around the same time, i.e. after arrival of the legionaries, and as part of the big building campaign attested for c.209–12.]
- 216: Vexillations of legions *IV Scythica* and *III [...]* *rf...*, built the amphitheatre; the line which probably named the presiding commander is lost. *Legio III [...]* *rf...* is restored plausibly but not conclusively as *III Cyrenaica*, from Bostra in neighbouring Arabia (PR 6, 77–80, no. 630; Edwell 2008, 140–1).
- c.212–22: Caracalla or Elagabalus (inferred from the unit title *Antoniniana*): *legio III Cyrenaica*, inscription preserving unit name only, in the *principia* (PR 5, 221, no. 557). *Legio IV Scythica*, altar dedication by a soldier, Temple of Bêl (PR 4, 68–71, no. 168). *Legio XVI Flavia Firma*, dedication by a soldier to Zeus Helios Mithras, in the X7 ‘Dolicheneum’ (PR 9.3, 115–17, no. 974).
- 221: Presence of a *librarius* of *legio XVI Flavia Firma* implied by a letter of the reign of Elagabalus (P. Dura 64).
- [222–3?]: *Legio IV Scythica* in a dipinto in the *principia* ‘tentatively dated to 222–3, details the names and ranks of five legionaries’, on the basis of an Aramaic date thought to be associated with it although this connection is questionable (PR 5, 224–6, no. 560; Edwell 2008, 140).]
- 222–35: *Legio XVI Flavia Firma* with title *Severiana*, so in the reign of Severus Alexander, in a graffito left in the *principia* by a *miles* (PR 6, 495, no. 843).
- 225: Receipt made out ‘in Dura’ in which a decurion and *eques* ‘of *cohors XX*’ sign for cash to buy barley (P. Dura 129).
- 230: Latin dedication by *cohors XX Palmyrenorum* to Severus Alexander and his mother (both obliterated), on a gypsum altar in the Temple of Bêl (Cumont 1926), 357–8, no. 3, pl. CXI.3. Cumont proposed to restore the lost line following the unit’s name, ‘*mili[tes coh. XX Palmy]renorum*’, as continuing ‘*eq. sag.*’, but this has not been accepted (Dirven 1999, 348, no. 57).
- 238–44: *Legio XVI Flavia Firma* mentioned in very fragmentary ?contract of the reign of Gordian (P. Dura 43).
- 250: Reference to *legio IV Scythica* in a very fragmentary but dated papyrus (P. Dura 95).
- 251: Vexillation of *cohors II (Ulpia) Paphlagonum* on second altar outside the X7 temple (‘Dolicheneum’: FR 9.3, 110–12, no. 971).
- 251: *Cohors II equestris* (probably rather than *cohors II Ulpia equitata*) on third altar outside the X7 temple (‘Dolicheneum’: FR 9.3, 112–14, no. 972).
- 254: Divorce document of Julius Antiochus, soldier of ‘the local vexillation’ of *legio IV Scythica*, from Aurelia Amimma... ‘of Dura’, written in the ‘*Colonia Europaeorum* ...’ (P. Dura 32).

TABLE 9.1 Datable textual evidence for Roman military contingents at Dura

Decade	Specific year or bracket	Allies	Auxiliaries				Legions			
		Palmyrene Archers	<i>Cob XX Palm.</i>	<i>Cob II Ulpia</i>	<i>Cob II Eq.</i>	<i>Cob II Pa[</i>	<i>IV Scythica</i>	<i>XVI Flavia Firma</i>	<i>III Cyrenaica</i>	<i>X Fretensis</i>
160s	169 ¹	Insc. 845								
170s	171	Insc. 846								
180s										
190s	193 ²									
	194									
200s	208		<i>P. Dura</i> 56 ³							
210s	209–11			2Insc. H1			Insc. 847	Insc. 847		
	211						Insc. 970	Insc. 970		
	216						Insc. 630		Insc. 630	
	209–22						Insc. 168	Insc. 974	Insc. 557	2Insc. 563
220s	221							<i>P. Dura</i> 64		
	225		<i>P. Dura</i> 129 ⁴							
	222–35							Insc. 843		
230s	230		Cumont 1926, 357–8, no. 3							
240s	238–44							<i>P. Dura</i> 43		
250s	251				Insc. 971	Insc. 972				
	254						<i>P. Dura</i> 32			

Notes:

This table includes only select datable papyri of *cohors XX Palmyrenorum*, as most do not overtly place it at Dura.

¹ Redating by Taylor 2001.

² Redating by Speidel, M. P. 1993.

³ First dated papyrus mentioning *cohors XX Palmyrenorum*.

⁴ First papyrus explicitly placing *cohors XX* in Dura.

DISCUSSION: ATTESTED RESIDENT FORMATIONS

From these data, what can we say about the chronology and changing composition of the garrison? It appears to have comprised contingents resident on a long-term basis, i.e. auxiliary units with their headquarters in the city, and legionary vexillations at least one of which was, by the 250s anyway, also a standing unit, plus shorter-term presences such as the probable vexillation of *legio III Cyrenaica* present c.216, and the auxiliary vexillations of 251. This is to discount even more transient, though perhaps far more massive presences such as field armies passing through during major campaigns. For example, Septimius Severus marched with a large army down the Euphrates in 198 (Cassius Dio 76.9). Such forces in transit were probably partly responsible for the huge Roman

temporary camps recently identified to the west of the city (James 2015a).

Palmyrene Archers

A body of Palmyrene archers, perhaps entirely horse-archers, was stationed at Dura under a *strategos*. First attested in 169, very soon after establishment of permanent Roman control of the city, these were probably Palmyrene civic forces acting as allies and proxies for the Roman authorities, i.e. ‘*symmachiarii*’ (*FR* 5.1, 24; Edwell 2008, 115). It is sometimes suggested that they were already stationed in Dura before 165, on the basis of an inscription (*Rep.* 7–8, 279–82, no. 909; Rostovtzeff 1935, 301; Smith 2013, 145). However, referring to archers of a named Palmyrene clan, anyway undated and perhaps itself from the Roman period, this text

more likely refers to commercial caravan guards than a formed body of civic troops (Dirven 1999, 210, 260–3).

Two successive commanders of the Palmyrene archers set up inscriptions in Greek and Palmyrenean in the Early Mithraeum (PR 7–8, 83–4, nos. 845–6). Building a Mithraeum suggests that at least the officers of the Palmyrene archers had had experience with the Roman military. It may be that the Palmyrene formation sent to Dura resembled Palmyrene *numeri* ('irregular' units) in Roman service, something of which is known, but not their size; 'ethnic' *numeri* varied widely in strength, from c.100 to c.1,000 men (Southern 1989, 89–92, 103–4). We have no information on Dura's Palmyrene archers after their second epigraphic appearance in 171.

Cohors II Ulpia equitata civium Romanorum sagittariorum

This combined unit of auxiliary horse and foot is the earliest regular Roman formation attested at Dura, through three inscriptions, two dated to the later second century AD. No papyri were recovered relating to the unit, although it is mentioned in a number of contexts elsewhere (Spaul 2000, 486).

The earliest inscription was on an altar in the Palmyrene Gate, datable to just after the death of Commodus (February or March 193), whom the dedicator believed still reigned, news having not reached Dura (Speidel, M. P. 1993). Set up by a decurion of the cohort, the unit named on the altar is read as *cohors II Ulpia equitata* (PR 1, 42–4; Gilliam later rejected the initial reading '*P[aphlagonum]*': FR 5.1, 24).

The second dated text, belonging to 194, was a dipinto on the wall of room E7-W12 in the military compound at the back of the Temple of Azzanathkona, dedicated by the unit's commander (PR 5, 226–9, no. 561, pl. XXXII.2).

A third inscription gives the unit's title as *cohors II Ulpia equitata civium Romanorum sagittariorum* (PR 2, 17, 83–6, H1). It was, then, a unit of archers (although very likely trained and equipped for close combat as well), and at some stage had gained the honour of a mass grant of Roman citizenship. This text is undated, but likely belongs to the early 210s (below).

That the inscription of 194 was created inside a military administrative complex at the behest of the cohort commander is, supplemented by the other two texts, evidence that *cohors II Ulpia* had its HQ at Dura during the last decade of the second century AD, potentially before, and probably after.

An innovation of the imperial era, *cohortes equitatae*, regiments of combined horse and foot, were raised in large numbers, evidently as versatile formations useful both for policing of frontiers and provincial populations in peacetime, and as components of field armies in war (their cavalry

components being brigaded with the *alae* for battle: Davies 1971). They came in two sizes, mostly *quingenaria* ('500 strong'), with some *milliaria* ('1,000 strong'). No text specifies the strength of *II Ulpia*, nor was this overtly discussed by the Yale expedition. Consideration of *cohors II* was rather perfunctory, it being eclipsed by the far greater information available for *cohors XX*. However, their belief that the pre-210 garrison was small implies they assumed it was quingenary.

Cohors II Ulpia was a distinguished unit, having won a mass award of Roman citizenship for some collective feat of arms (Devijver 1986, 112–13). Although the title *civium Romanorum* is omitted from the two dated inscriptions, there is reason to believe the unit held the award before arrival at Dura. It was already in Syria in AD 156/7 (appearing in a dated military diploma: CIL XVI, 106 = ILS 9057), and subsequently participated in Verus' expedition, recorded in a now-lost inscription. This was damaged but, long before inscription H1 was discovered at Dura, Dessau read the unit name as ending '*c.R.*' (CIL III 600 = ILS 2724: Spaul 2000, 486 n. 2).

How long did *II Ulpia* remain in Dura? Undated inscription H1 came from the Military Temple at the head of the wadi floor and in the shadow of the Citadel, and recorded that *cohors II Ulpia* built the shrine in connection with extension of the military training ground (*campus ampliato*: PR 2, 83–6, H1). It also recorded that the unit was under a centurion (name lost) of *legio IV Scythica* acting as *praepositus numerorum*, i.e. commanding the cohort and one or more other unspecified contingents at Dura at the time. Other known and datable legionary *praepositi* at Dura are third century, while the events recorded in the inscription—expansion of the *campus* and building of the temple—make best sense as part of the major infrastructure building programme undertaken mostly c.210–12.

Most dated references to specific legions and auxiliary formations (especially *cohors XX*), from formal building inscriptions to graffiti and dipinti (notably from the Middle Mithraeum: Francis 1975), belong to the third century. If *II Ulpia* had remained in garrison for any significant time after c.210, we would expect to see references to it. Complete absence of these strongly indicates that it was posted away from Dura, during or immediately after the Caracallan building campaign.

Cohors XX Palmyrenorum

This unit is by far the best documented formation at Dura, thanks to the surviving fragments of its papyrus archive. Fink wrote the primary account the organization and strength of the regiment (FR 5.1, 28–35). Rostovtzeff believed the cohort had been newly raised by Severus (Rostovtzeff 1938, 26), something Gilliam also thought likely on the basis of numerous attested soldiers in the unit who had enlisted early in Severus' reign, although he conceded it could equally have

been raised 'in the preceding decades' (*FR* 5.1, 26). Gilliam mentioned, but did not especially favour, the possibility of *cohors XX Palmyrenorum* deriving from the early Palmyrene archer force (*FR* 5.1, 26–7). He could offer no explanation for the high numeral of the unit, which subsequently Kennedy satisfactorily resolved by arguing that the formation became the twentieth auxiliary cohort in the garrison of Syria, placing its raising sometime before Severus divided the province in two, i.e. pre-194 (Kennedy 1983). Its likely origins are discussed further below.

The earliest specifically dated attestation of *cohors XX Palmyrenorum* is AD 208, preserved in fragments of a scroll of archived letters, in one of three surviving dockets assigning cavalry mounts, sent by the provincial governor to the *tribunus cohortis* (*P. Dura* 56A). However, in these brief formulaic texts, there is no reference to where the cohort was when the letters were received. Gilliam suggested that a letter of the same year indicates that it was in Dura by then (*P. Dura* 60B: *FR* 5.1, 27). But while the document was preserved in the archive of *cohors XX*, it is simply a circular letter to the tribunes, prefects, and *praepositi* at a list of stations which includes Dura among others, and neither mentions nor locates *cohors XX* as such.

Indeed, none of the various surviving dated documents relating to the unit explicitly states that its HQ was at Dura. Only a single papyrus overtly places any men of the unit in the city at all: a receipt in Greek dated 225 in which 'in Dura' a decurion and *eques* 'of *cohors XX*' sign for cash to buy barley (*P. Dura* 129). Otherwise, a letter of c.220 reacting to mass straggling of men from *cohors XX Palmyrenorum* places the unit in 'Parapotamia' and mentions its *castra* but the fragment preserves no place name—or conceivably names, as *castra* is a plural and *cohors XX* had men at multiple outposts. Two strength reports dating to after 230 mention the unit's *hiberna* (winter quarters) but do not specify where these were—otiose, because everyone using the documents knew this (*P. Dura* 82, c.233; *P. Dura* 89, 239). Similarly, duty rosters dating to c.235–40 mention guards at a 'Water Gate', almost certainly Dura's city gate down to the Euphrates (*P. Dura* 106, 107). The most explicit evidence for the unit being based in Dura is as late as 230, when *cohors XX Palmyrenorum* was attested on an altar in the Temple of the Palmyrene Gods (Cumont 1926, 357–8, no. 3, pl. CXI.3). Strictly speaking, then, we cannot certainly place the HQ of *cohors XX Palmyrenorum* at Dura before the 220s. However, the fact that the surviving documents name other places in the region (especially outposts like Becchufayn, Appadana, etc.), but do not mention Dura, is strong evidence that the unit was based in the city during the period, because that was where the texts were being composed. We may be confident, then, that *cohors XX* was already there by the 210s.

The organization of *cohors XX Palmyrenorum* has attracted a great deal of interest, both because it is attested

in exceptional detail, and because it is deemed anomalous. However, as Ian Haynes and I have discussed in personal communications, it is striking that where we see particular auxiliary units in detail, as at Dura and Vindolanda, they look 'anomalous'. Perhaps 'normal' unit strengths and compositions were idealizations rarely if ever encountered in messy reality, with a greater degree of customization of unit establishments, overlain by a wide range of ad hoc short- and long-term detachments and cross-postings, being the true normality. Or was *cohors XX* truly unusual?

Its surviving third-century records show that *XX Palmyrenorum* comprised both infantry centuries and cavalry *turmae*, i.e. in general terms it was a *cohors equitata*. Its two best-preserved rosters indicate total complements of 1,210 (*P. Dura* 100, AD c.218) and 1,040 men (*P. Dura* 101, AD 222: *FR* 5.1, 44, 300–64). In each of these documents, about 17 per cent of the cohort's men were listed as on detachment, as *equites singulares* (horse guards of the governor, likely based at Antioch), or in multiple small detachments at named outposts like Becchufayn and Appadana (*FR* 5.1, 27: *P. Dura* 100 lists 204 men detached out of 1,210; *P. Dura* 101 lists 177 out of 1,040: *FR* 5.1, 44, 300–64; see also Davies 1971, 759). The detachment at Appadana, at least, was styled a vexillation, and so possessed its own standard (*P. Dura* 64A). Two daily reports also directly preserved strength figures, one March 27, c.233, attesting 914 men (*P. Dura* 82), the other of May 27, 239 recording 781 (*P. Dura* 89; *FR* 5.1, 30–1), the exact meanings of which Fink and Gilliam debated. Fink noted that the 239 report specified that it was listing men 'in *hibernis* [winter quarters]...thus excluding those on detached service' (*FR* 5.1, 30–1). Applying the ratio for detached personnel derived from the rosters, this would indicate a unit strength of c.940 men. However, while the 233 report made no such qualification, instead labelling its total 'n. p.', this was expanded as *numerus purus* and translated as 'net number', the editors suggesting that it, too, might still exclude many men (*FR* 5.1, 271).

All of these texts point to *cohors XX* being around a thousand strong in the earlier third century. The cohort was also commanded by a tribune rather than a prefect, appropriate to a milliary rather than quingenary formation (Devijver 1992, 276–7). However, the designation *milliaria* does not occur in any surviving text. This could be chance, as we have few formal texts where the unit's full name might be expected, but more likely reflects its official nomenclature because, while literally a thousand strong, the structure of *XX Palmyrenorum* also differed radically from a 'normal' *cohors equitata milliaria*.

Davies reconstructed the normal organization of quingenary *cohortes equitatae* in early imperial times as comprising six infantry centuries, probably of 80 men, plus 120 horse in four *turmae*, so up to c.600 men at full complement, with milliary units having 240 horse in eight *turmae*, plus ten centuries of 80 infantry, for a total establishment just

exceeding a thousand (Davies 1971, 751–2). However, instead of the ten infantry centuries expected of a milliary *cohors equitata*, *XX Palmyrenorum* only had the six of a quingenary unit (*FR 5.1*, 28–30). The names of all or some of the six centurions are preserved in twenty-three papyri spanning 216 to at least the 240s, allowing partial reconstruction of the unit's history at this level (*FR 5.1*, 28 and fig. 3). Similarly, instead of the expected eight *turmae*, the unit consistently had five, its decurions listed in nine texts dated between c.219 and c.240 (*FR 5.1*, 30 and fig. 4). Fink rejected the possibility that four centuries 'and perhaps some of the cavalry, were on detached service so distant that they were not carried in any of the rolls at Dura', an idea echoed by Davies (*FR 5.1*, 30; Davies 1967, n. 17). However, there is now evidence that autonomous permanent auxiliary vexillations were developing in this period (Kemkes 2015, 16), so it is not impossible. Notwithstanding, the unit at Dura was still de facto milliary-size, through its centuries and *turmae* each being double the normal strengths (*FR 5.1*, 28–34). This structure has long struck me as echoing the organization of the first cohort of a post-Flavian legion, which comprised doubled centuries, and indeed an odd number of these: five instead of the usual six (Breeze 1969), something also commented on by Edwell (2008, 137). *Cohors XX*, then, looks structurally most like a quingenary *cohors equitata* with an extra *turma*, which at some subsequent stage simply had each of its components doubled in size.

Not only did *cohors XX Palmyrenorum* lack the formal descriptor 'milliaria', it lacked any other specific identifiers either. It is not even designated *equitata*, in contrast with *cohors II Ulpia* which was so labelled, in one inscription also recorded as *civium Romanorum* and *sagittariorum*. Again, the apparent brevity of *cohors XX Palmyrenorum*'s official name might be chance preservation, acting on inconsistency of Roman usage and the small number of formal references to the unit. In the surviving context where any such formal designation as *equitata* etc. would most likely have been specified, i.e. the altar inscription of 230, the relevant line is missing. Here Cumont suggested that '*cohors XX Palmyrenorum*' had originally continued '*eq. sag.*' (Cumont 1926, 357–8, no. 3, pl. CXI.3), but this reading was subsequently rejected.

Use of the unqualified name may reflect actual official (non-)usage. That it possessed no additional descriptors is indicated by the fact that, for example, in the strength report of March 27, c.233 (*P. Dura* 82), it is named with its current imperial honorific, *cohors XX Palmyrenorum Severiana Alexandriana* (and correspondingly *Gordiana* in another of c.239: *P. Dura* 89). This was probably because in both structure and composition *cohors XX* was indeed an anomaly which could not be accommodated within traditional nomenclature. Notably it included around thirty dromedary troops (*P. Dura* 82.i.1, 4, 9, AD c.233, records thirty-four *dromedarii*; *P. Dura* 88.4, c.238–44 records thirty-one;

P. Dura 89.i.5, 11 of 239 at least thirty-six; *P. Dura* 91.9, c.225–35, gives twenty-seven). Suggesting a camel-soldier component about the size of a cavalry *turma*, some of these figures include one or two *sesquiplicarii*, a title given to the most junior officer of a *turma* (Haynes 2013, 326). However, in the unit rosters the *dromedarii* were attached to the infantry centuries (*FR 5.1*, 33: *P. Dura* 100.xliii.18 of AD 219; *P. Dura* 102.iii.2; v.4; vii.17; ix.26 of AD 222–4). Was this because they were not as prestigious as *equites*, or because tactically they were mounted infantry? Further, at least later some of the unit's cavalymen may have been equipped as Parthian-style, fully armoured, shieldless lancers: cataphracts (Mielczarek 1993). Multiple horse armours of Roman-style scale and clearly in Roman possession at the time of the final siege were recovered in the excavations, indicating the garrison cavalry included cataphracts, at least in its later years (James 2004, 129–34, nos. 449–52). Such exotica as *dromedarii* and perhaps cataphracts arguably made the unit too complex and anomalous for established standard terminology like *cohors equitata* or indeed *sagittaria*. Even though we may assume many or all of its soldiers, being Palmyrenes or in a nominally Palmyrene 'ethnic' regiment, were trained in archery, the central method of regional steppe warfare, a large proportion of its men may not primarily have been archers per se.

Whether or not it ever included cataphracts, *cohors XX Palmyrenorum* was, then, apparently very unusual in its combination of large size, anomalous organization, and complex composition. It comprised an 'all-arms force', even a 'miniature army'; if *cohors XX* ever operated in the field with Dura's legionary contingents, it would certainly have comprised one. However, its eccentric organization may be explicable as a specific adaptation for another key part of its mission: maintaining multiple outstationed contingents over a long stretch of the Euphrates corridor.

It was noted above that rosters 100 and 101 each indicate c.17 per cent of *cohors XX*'s men were on detachment, some as horse guards for the provincial governor, but most at military posts in smaller settlements up and down the river. A fragmentary letter from Dura, believed to be early third century, addressed to a centurion in the city, was from a soldier who had been stationed at Becchufayn apparently for some time, accompanied by his family (*P. Dura* 46). A proportion of *cohors XX*'s strength was thus routinely away from Dura on outpost duty. Outposting of auxiliary vexillations at secondary stations was a widespread phenomenon elsewhere, e.g. in third-century Upper Germany. It also paralleled on a miniature scale outposting of legionary vexillations to Dura itself from Samosata and Zeugma. Gilliam plausibly suggested that 'the surprisingly high [total manpower] figures found in the rosters may be the result of a policy of maintaining adequate strength at a unit's headquarters while still providing men for vexillations and other detached duty' (*FR 5.1*, 27).

The Legionary Presence

Legionaries are first attested in the city in an inscription dating to 209–11, when vexillations of the two legions of the provincial army of Syria Coele, *IV Scythica* and *XVI Flavia Firma*, appear in an inscription marking a restoration or rebuild of the Mithraeum set up by the centurion *praepositus* jointly commanding them (*PR* 7–8, 85, no. 847). The same individual and contingents were also mentioned in the first altar to Dolichenus dedicated at the temple in X7 in 211 (*FR* 9.3, 107–10, no. 970). It was argued above that these vexillations likely built the *principia* as well.

In 216 vexillations of legions *IV Scythica* and *III* [...], built the amphitheatre (*PR* 6, 77–80, no. 630). The latter was restored plausibly but not conclusively as *III Cyrenaica*, from Bostra in neighbouring Arabia (p. 243). Gilliam suggested the vexillation of *XVI Flavia Firma* had been recalled for Caracalla's campaign across the Tigris that year (*FR* 5.1, 25), proposing a temporary deployment of a detachment of *III Cyrenaica* to cover for it. This deployment is perhaps also attested in the undated *principia* text mentioning *III Cyrenaica* (*PR* 5, 221, no. 557), and would appear consistent with an intention of maintaining a pair of vexillations in the city, normally drawn from the legions of Syria Coele.

With completion of key base infrastructure bearing formal dedicatory inscriptions in the 210s, for the rest of the Roman period references to the legionaries become much sparser. The presence of individual soldiers of both Syrian legions is attested, and the unit names occur sporadically in texts over the following decades. The latest dated reference to *XVI Flavia Firma* is no later than 244. *IV Scythica* is last attested in 254, in a reference to 'the local vexillation' of the legion (*P. Dura* 32). These fragments are open to multiple interpretations.

Reference to 'the local vexillation' of *IV Scythica* indicates that this detachment from the legion's main base at Zeugma was by 254 a long-term outpost, and it is likely it had been continual since the 210s, except perhaps for occasional temporary concentration of the legion in wartime. Edwell notes, however, that while soldiers of *XVI Flavia Firma* are attested at Dura in papyri of Elagabalus, Severus Alexander, and possibly Gordian III, after the 210s none is specifically mentioned as being in a vexillation (Edwell 2008, 141, n. 281); they could, therefore, all have been on individual detachments to Dura for specific duties. And conversely, between c.220 and c.250, while there are several references to soldiers of *legio XVI*, we hear nothing definite of *legio IV*.

On this highly fragmentary evidence it is possible that from the 220s to the 240s the legionary presence was smaller and less formal than a pair of designated vexillations; however, it is more likely that we are just dealing with the chances of survival of textual references, and that formal vexillations of one or both legions remained continually resident to the 250s. It is also noteworthy that arrival of the two vexillations c.209–11 coincided with erection of a substantial *principia*

building, clearly subsequently used by legionaries, if not necessarily exclusively. The large size of the military base, apparently sustained throughout the period, also suggests many more troops than even the large *cohort XX Palmyrenorum* were normally resident, and the texts we possess for other *milites* do repeatedly attest legionaries. But how many legionaries were normally in the city?

I previously suggested the legionary vexillations at Dura could have totalled the equivalent of anything between one and four cohorts (James 2004, 19). At the time I was unaware of Tully's 2002 work on vexillations, which indicated that, while formations of such size were created for campaign armies, resident garrison vexillations of legionaries could be much smaller, such as the century-sized legionary vexillation at Montana, Lower Moesia, in 155 (*CIL* III 7449; 33–4, 92–3, 104; Rankov 1983, 52–4; Tully 2002, 92–3, 103). Another fragmentary inscription, from Bir Rhezene in Africa Proconsularis, records part of a list of soldiers serving in a vexillation of *legio III Augusta* at a point between 198 and 211; the text was estimated originally to have listed c.300 legionaries (Merlin 1921, 247; Tully 2002, 134–5). The limited evidence suggests a range of approaches and sizes, including detachments based on one or several centuries, and perhaps entirely ad hoc custom formations, some as at Dura brigaded with auxiliaries. Tully concluded that 'it may be that many vexillations were specially tailored to suit the demands of the task or post for which they were created' (2002, 135).

The best clue to the size of the legionary presence at Dura is a text listing a *librarius* and four *adiutores* of *IV Scythica* (*PR* 5, 224–6, no. 560; Speidel, M. A. 1998, 181, no. 19). The four *adiutores* led Hopkins and Rowell (*PR* 5, 226), extrapolating Domaszewski's idea of one *adiutor* per century among the *vigiles* at Rome (Domaszewski 1967, 14–15), to suggest a vexillation of at least four centuries, so c.360 men, although Speidel suggested fewer (Speidel, M. A. 1998, 172–3, 181; citing Speidel, M. P. 1992a, 6–8). This would not, however, include any vexillation from *XVI Flavia Firma*. We can at best suggest that the legionary presence at Dura from the 210s to the 240s was probably normally hundreds, but is unlikely to have exceeded 1,000, i.e. rough parity with the co-resident *cohort XX Palmyrenorum*.

GARRISON CHRONOLOGY: THE ESTABLISHED VIEW

The received picture of the garrison's historical development has basically remained that set out by Gilliam in 1959 (*FR* 5.1, 24–6). He argued that the textual evidence falls into three phases:

'c.165–c.208'

Straight after Roman annexation Palmyrene archers were stationed at Dura, attested epigraphically in 169 and 171.

'These Palmyrene *symmachiarum* may be regarded as belonging to the Roman garrison' (*FR* 5.1, 24). The regular auxiliary formation *cohors II Ulpia equitata* was in the city before the death of Commodus and then 'occupied the town alone until the time of Septimius and Caracalla' (*PR* 7–8, 86–7). The temporal exclusivity of dated texts of *cohortes II Ulpia* and *XX Palmyrenorum* suggested to Gilliam that they were not both there at same time, the latter replacing the former in the third century (*PR* 5, 229).

As we saw, Gilliam considered but was not convinced that the Palmyrene archers evolved into *cohors XX*. Welles was agnostic on the possibility, noting recruitment dates suggesting *XX Palmyrenorum* existed by 192 or at least included men recruited that early, but did not speculate on where the unit was at that time (Welles 1951, 253, 256). Since then, various writers have speculated that *cohors XX* did indeed evolve directly from the Palmyrene archers at Dura (e.g. Dirven 1999, 19; Edwell 2008, 117, 136; Haynes 2013, 81).

'c.208–17'

The concentration of dated texts around the end of the reign of Severus and the beginning of the sole rule of Caracalla begins with the first dated mention of *cohors XX Palmyrenorum*, in 208 (*P. Dura* 56A). The close coincidence of this date with those for the first presence of legionary vexillations in 209–11 was regarded by Rostovtzeff and other members of the Yale team as indicating that *cohors XX* and the legionaries arrived about the same time, an all-new garrison which immediately embarked on a major building programme dated by inscriptions on major buildings dating between 209 and 216. These texts attest the presence of vexillations of Syria Coele's two legions, *IV Scythica* and *XVI Flavia Firma*, with references to *III Cyrenaica* perhaps representing a temporary wartime redeployment around 216.

'217–56'

While military-political circumstances doubtless changed after 216, Gilliam saw no clear reason to envisage fundamental alteration to the recently established mixed garrison, comprising, or at least centred on, *cohors XX Palmyrenorum* and vexillations from Syria Coele's two legions (*FR* 5.1, 25–6). He envisaged the deployment arrangements of the late 210s continuing down to the 250s, when there is evidence for some additional auxiliary detachments. 'To sum up, evidence is enough to show that after c.210 at any rate the garrison was fairly large and consisted of components a different kinds' (*FR* 5.1, 26).

Discussion

The picture received from the original expedition team, then, summarized by Gilliam in 1959, generally took the

fragmentary textual record at face value. A Palmyrene archer force of unknown size was succeeded under Commodus by the presumably quingenary *cohors II Ulpia*, which stayed for roughly twenty years. In the early third century *II Ulpia* was in turn replaced by the quasi-milliary *cohors XX Palmyrenorum*, plus a substantial force of legionaries in two vexillations, implying sudden expansion of the military establishment at Dura from c.600 to perhaps 1,500 or 2,000 troops, trebling or quadrupling its size and so its demands for space etc. Here, c.210, is ostensibly the massive and traumatic shock to the civil community which Rostovtzeff envisaged (p. 22).

GARRISON DEVELOPMENT: A NEW MODEL

Exactly the same data also accommodate a very different model which, it is argued, better fits and explains the evidence, both textual and archaeological. The reconstruction set out above anyway presents serious difficulties. Not least, subsequently Kennedy effectively proved that *cohors XX Palmyrenorum* was an Antonine creation (Kennedy 1983; 1994), and was not raised by Severus as Rostovtzeff apparently believed (1938, 26). If it was not already at Dura before 208, where was it? It is never attested anywhere else. In any case, as we have seen 208 is simply the earliest dated surviving reference to it, telling nothing about its whereabouts or movements.

It is argued, then, that *cohors XX* was at Dura for decades before our first datable direct glimpse of its existence. That this happened to be in 208, close to the date of appearance of the legionaries in Dura's textual record, c.209–11, is a fundamentally accidental convergence, erroneously taken to indicate the cohort's recent arrival as part of the same late Severan reorganization that involved installation of the legionary vexillations. I suggest we hear nothing of *cohors XX Palmyrenorum* in the second century simply because at Dura very few early military texts survive anyway: the new cohort had not yet developed the 'epigraphic habit', while early papyrus records had been purged from its archive long before a fragment of it was deposited under the rampart.

The central hypothesis here is that *cohors XX Palmyrenorum* was indeed created *in situ* at Dura directly from the previously attested body of Palmyrene archers. But what was the chronology, and the mechanism? Kennedy convincingly argued its unusually high numerical designation is explicable only in terms of the new formation being the twentieth auxiliary cohort in the garrison of Syria before Severus divided the large province in two in 194 (Kennedy 1983). In another paper, he attempted to be more precise about its dates of foundation and of its apparently later expansion to milliary scale, insightfully using data preserved in third-century rosters of the regiment to study the pattern of recruitment these indicate (Kennedy 1994). He identified two strong peaks, around 300 men enrolled between 201–4 and almost as many in 214–16, which he convincingly argued

did not, as Fink had thought, reflect episodes of major reinforcement of the unit for wars occurring at those times (*FR* 5.1, 35). Rather, Kennedy proposed, they were consequences of the need to replace large groups of men recruited during earlier episodes in the unit's development, all being discharged during those two short periods after their twenty-five-years' service (Kennedy 1994, 92–3).

Kennedy argued that *cohors XX* had actually been founded immediately on the Roman takeover, thought to be in 165, and was doubled a decade later, around 175–6 (1994, 91). He suggested expansion of the regiment was a consequence of Marcus Aurelius' visit to 'settle the East' in 175–6 following the rebellion of Avidius Cassius (*Augustan History: Marcus* 25–7.1; Kennedy 1994, 95; also mooted by Sartre 2005, 137–8). The two discharge/recruitment peaks of the early third century would then reflect the second roughly twenty-five-year recruitment cycle from the foundation of 165 (requiring intensified recruitment around 215), and the first recruitment cycle following the unit's doubling (creating the recruitment peak soon after 200). However, as he himself was aware (Kennedy 1994, 96), there remains the problem of the Palmyrene archer unit under their own *strategos* attested in the Mithraeum in 169 and 171, some years after they had, on his scheme, already been absorbed or transformed into the nascent *cohors XX*.

Kennedy's insights offer, however, a variant interpretation. It is suggested that the 201–4 recruitment peak simply reflected discharge of the survivors of the unit's first recruits, and the second peak those from its doubling. This would place the raising of the unit around 176–8, perhaps indeed a result of Marcus' 'settling of the East', and neatly allowing for the new unit to have been raised from the Palmyrene archers.

It is further proposed that Marcus' hypothetical decision to incorporate the Palmyrene archers into a regular cohort also provided part of the motive for the posting of *cohors II Ulpia* to the city. Already there by the death of Commodus, it is proposed that *II Ulpia* was sent to Dura c.176, with the double task of establishing a direct Roman military presence on this long stretch of the Middle Euphrates, and also of overseeing transformation of the Palmyrene archers into a new regular Roman formation. It was ideally suited to the roles of midwife and mentor to a nascent *cohors XX Palmyrenorum*; *II Ulpia* was itself a part-mounted unit with the skills mix needed by the new regiment, and likely had other relevant qualities. If it had indeed recently won citizenship during Verus' Parthian war, *II Ulpia*'s senior soldiers would still largely have comprised decorated veterans with experience of campaign and combat in the dry steppe environment of the region. These were exactly the right kinds of men to oversee creation of the new unit, some junior officers and experienced soldiers likely transferring to form the initial cadre of *cohors XX*, serving as instructors and examples of Roman military discipline (compare Tac. *Agric.* 28).

It is argued, then, that *cohors XX Palmyrenorum* was raised c.176, and that it was doubled in strength around

189–91, albeit for unknown reasons, during the latter part of Commodus' reign. Deployment of *cohors II Ulpia* to Dura therefore looks to represent the first stage in an incremental formalization of Rome's military grip on the region (likely rather 'mission creep' under successive emperors than any long-term plan), immediately followed by conversion of the city's Palmyrene archer force to a second, initially quingenary, *cohors equitata*, doubled in size under Commodus. Dura then served as the base for a pair of cohorts down to the end of the reign of Severus. This was a substantial force—indeed almost certainly far more substantial than hitherto realized. For *cohors II Ulpia* was, like *cohors XX*, commanded by a tribune rather than a prefect (Fig. 5.11; *PR* 5, 226–9, no. 561, line 9). This is an important detail apparently missed by Gilliam who later ascribed all of the tribunes named at Dura to *cohors XX Palmyrenorum* (*FR* 5.1, 27–8). Command by a tribune indicates that *cohors II Ulpia* was, like the enlarged *cohors XX*, also milliary (Devijver 1992, 276–7). On this model, then, Dura's garrison would already have been c.1,500 strong in the 180s, and between c.190 and c.210 stood at c.2,000 auxiliaries (Fig. 9.1).

The major reorganization in the years around 210 would therefore see continuity of the already-milliary *cohors XX*, with the likewise 1,000-strong *cohors II Ulpia* replaced by the vexillations of legions *IV Scythica* and *XVI Flavia Firma*. Far from expanding markedly in size c.210, unless the legionary vexillations were indeed cohort-sized, the garrison could even have shrunk.

Either way, on this new model there was no sudden massive expansion of the garrison c.210. It had already grown large incrementally, perhaps reaching the size seen from c.210 onwards decades earlier. The main change in the early third century was, then, not quantitative, but qualitative—replacement of up to half the auxiliaries by legionaries. Yet even this change may have been less significant than might at first appear. A major difference between auxiliaries and legionaries, anyway about to be swept away by the *constitutio Antoninia*, had once been that normally the latter were Roman citizens while typically the former, until completion of service, remained provincials. However, before 210 Dura's senior regiment, *cohors II Ulpia*, already held the citizenship, and so was a unit already of a status comparable with the legions (Saddington 2002). In any case, by the late second century many serving auxiliaries were already citizens anyway (Haynes 2013, 80).

FURTHER UNNOTICED THOUSANDS? AN 'EXTENDED MILITARY COMMUNITY'

It is agreed then, that Dura's Roman garrison had already grown to around its post-210 scale decades earlier than the Yale expedition team and subsequent commentators have

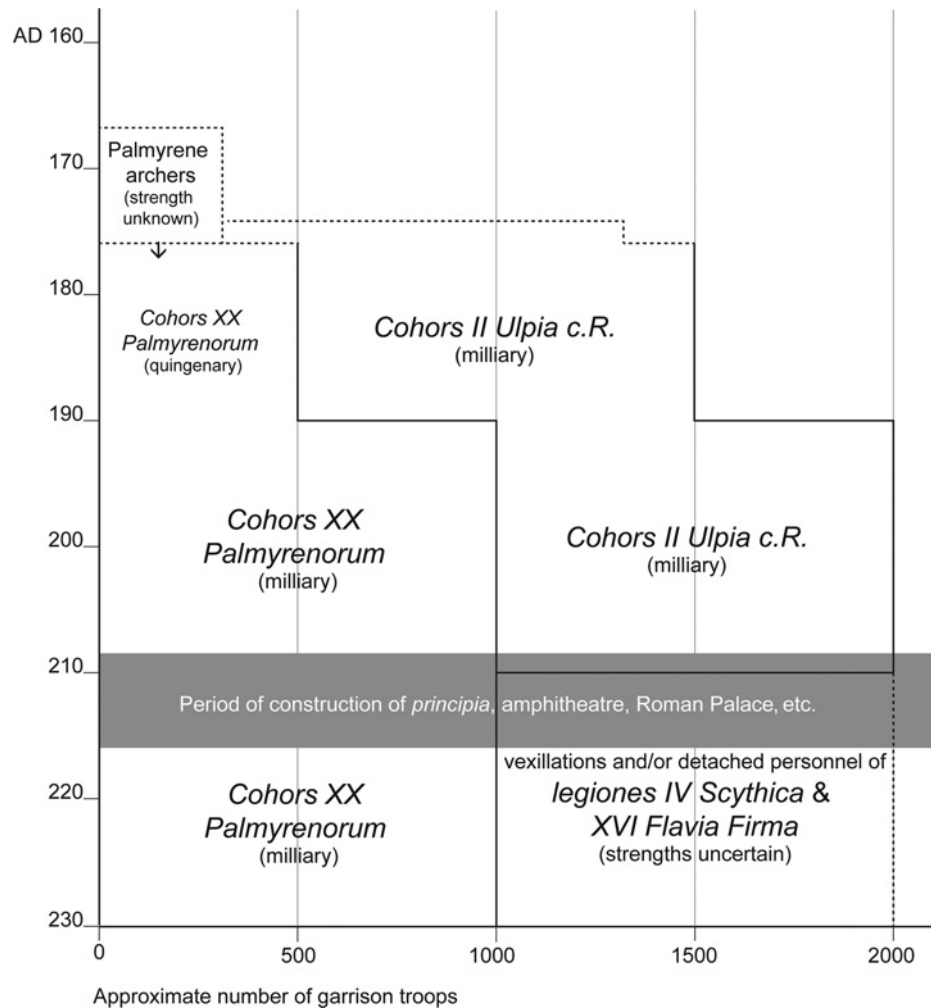


Fig. 9.1. Schematic representation of the proposed developments in composition, and approximate scale, of the Roman imperial garrison based at Dura, through the first half of the Roman period and the major reorganization around 210. After arrival of the legionary contingents, garrison composition seems to have undergone no further major changes until the turbulent 250s.

thought, developing incrementally over a significantly longer timeframe than has been appreciated, with substantial implications for the history of the city. Yet this is only half of the picture. There is also every reason to believe that the Roman military presence involved far larger numbers of people than hitherto realized.

‘Camp Followers’ or Military Dependents?

Members of the Yale expedition were aware that ‘Dura, as a garrison town, [would have been] subject to the usual influx of hucksters and hangers on of both sexes, selling food, crockery, uniform equipment of all sorts and every kind of entertainment’ (Welles 1951, 271). Indeed, they noted that the texts contained occasional references to soldiers’ wives and families, and apparently attested prostitutes and entertainers. However, they gave little attention to such ‘camp

followers’, and certainly did not consider their likely numbers. They therefore remained effectively blind to what in terms of sheer numbers was almost certainly another major component of Dura’s urban population, and one mostly far more closely integrated with the soldiers than Welles or others realized. The following is a précis of a more detailed account published elsewhere (James 2018), with further thoughts on the fraught question of numbers of soldiers’ wives and children.

In recent decades, historical, iconographic, and archaeological research has radically changed our basic understanding of the social nature of middle imperial military formations and garrison stations. They were once widely thought of as comprising contingents of soldiers alone, which officers struggled to keep clear of crowds of opportunist civilian hangers-on, ‘sutlers and prostitutes’. Archaeologically, the substantial settlements which grew up around the familiar middle

imperial ‘playing-card’ military bases on the northern frontiers—some of which grew into cities—indicate the numbers of additional people involved (although some non-soldiers lived inside forts, while some soldiers probably lived outside). It is now increasingly understood that many of these additional people were not all just opportunists and parasites hanging around the armies; many were in varying degrees intimately integrated with them. They constituted demographic components of a significance which cannot be ignored (James 2001a; 2001b; forthcoming 2018; Stoll 2006, 263).

Military Servants

From republican times Roman troops were routinely accompanied on campaign by large numbers of military servants. The permanent regiments of the imperial armies retained large numbers in two categories: *calones* and *lixae* (Speidel, M. P. 1992b; Roth 1999, 91–116; Vishnia 2002). *Calones*, or *galearii*, were personal servants of soldiers, and are depicted on tombstones, especially of cavalymen. They were also employed by foot soldiers (Speidel, M. P. 1992b, 245). *Lixae* manned the baggage train and helped with foraging and supply (Vishnia 2002). These servants were of low status, but by no means all servile; some *calones*, especially, were likely teenage ‘wannabe’ soldiers earning a living and learning the ropes while awaiting enlistment. *Lixae*, who could be described as ‘valiant men’ (*Augustan History: The Two Maximini* 2.6–7), were perhaps contractually employed by the unit. To be able to keep up with the troops and maintain order on the march, these servants underwent military training, helped defend the camp and, *in extremis*, fought (Josephus *Jewish War* 3.69; Speidel, M. P. 1992b, 244). *Calones* and *lixae* were no ‘hangers-on’: they were trained paramilitaries, fulfilling the support and logistics roles today undertaken by professional soldiers who outnumber the fighting troops. They were de facto part of the armies, and took their sense of identity from their ties with the soldiers—which sometimes gave them licence to behave outrageously (Tac. *Hist.* 2.87). *Calones* and *lixae* were also numerous. There is reason, partly from the Dura papyri, to believe that each *eques* retained a *calo* to look after his horse(s) and kit. Speidel argued *P. Dura* 100 indicated each *eques* drew an extra ration to feed his *calo* (Speidel, M. P. 1992b, 241). If so, then with *lixae* as well, the servants of a cavalry contingent, at least, outnumbered the *milites*.

Soldiers’ Wives and Families

Yet military servants were still only part of the story. Despite a formal ban on regular soldiers contracting marriages in service during the earlier empire, many serving *milites* clearly did acquire ‘unofficial’ wives (i.e. partners whose married status was not recognized in Roman law) and fathered children; families of auxiliaries could be formally legalized at

expiry of service, as bronze military citizenship diplomas make clear. Whether or not the words of Herodian indicate that Severus removed the marriage ban in 197 (Herodian 3.8.4–5: Maxfield 1995, 16 and n. 38; Phang 2001, 18)—and Eck has argued convincingly that in fact he did not (Eck 2011)—he appears at least to have officially allowed *milites* to cohabit with their families. However, this was something which in practice had already been happening to some degree for a century. The Vindolanda tablets reveal unit commanders had anyway long been accompanied by their families (Bowman, A. K. and Thomas 1994: *Tab. Vindol.* 291, 292, 301, 302; Allison 2011, 164), while inscriptions show the same for centurions (Allason-Jones 1989, 57–9). Women’s and children’s shoes from Vindolanda’s barracks indicate that some ordinary soldiers also already maintained unofficial families, even inside forts, by AD 100 (van Driel-Murray 1994; 1995; 1997). But how many wives and children should we envisage belonging to Roman units? There is reason to think that as soldiers achieved increasing status, wealth, and rights during the middle imperial period when Dura’s garrison existed, so circumstances became more stable for their family lives, likely encouraging more to marry (Haynes 2013, 89, 131–2).

How Many Wives and Children?

How many men in a Roman regiment were married at any one time? Here a rough attempt is made to estimate this, if only approximately. It draws on three studies: Scheidel’s on military demography (1996); Roxan’s on post-Trajanic marriage data from Roman military diplomas, giving us a picture of the *auxilia* (1991); and Phang’s work on second- and third-century soldiers’ epitaphs set up by family members, i.e. soldiers commemorated by birth-family compared with epitaphs set up by wives or children (2001, 142–96).

This is plagued with multiple unquantifiable variables and uncertainties, and requires making various assumptions, e.g. that children commemorating soldier fathers represent a marriage of some kind (and that the absence of a named wife may imply that the pattern outlined below includes some widowers and divorcees). However, here the information outlined above is applied to a simplified model (Fig. 9.2). The graph presents a notional milliary cohort, rounded to literally 1,000 men for simplicity, though it is the percentages which are important. This is an idealized snapshot projection of a long-established unit with roughly steady-state recruitment and losses, due to honourable discharge after twenty-five years’ service (c.60 per cent of those recruited), or at earlier stages due to death, desertion, or dishonourable or medical discharge (40 per cent). Individuals are presumed to have been recruited on average at 20; many probably joined slightly younger, some older; precise figures are difficult due to the tendency in epitaphs to round ages to the nearest five years. It applies a simple life-expectancy profile derived from

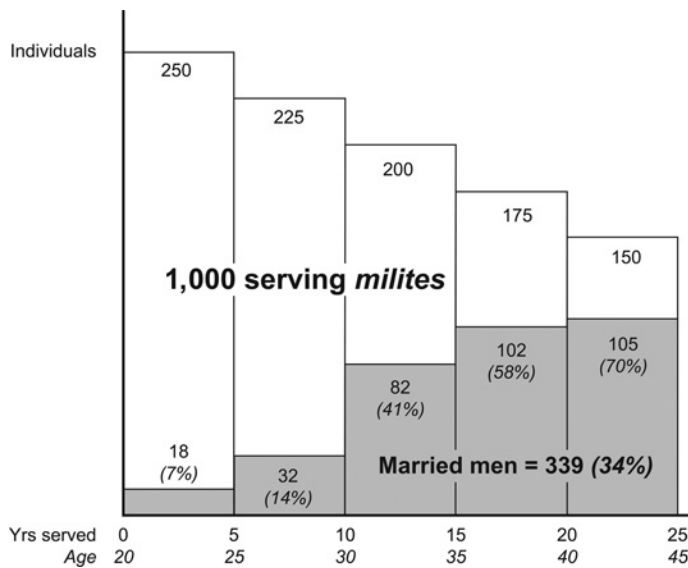


Fig. 9.2. Hypothetical projection of the numbers of married soldiers within a notional milliary Roman auxiliary formation of the later second to earlier third centuries AD.

Scheidel (1996, 118–19, figs 3.22, 3.23), and Roxan's analysis of auxiliary diplomas issued after AD 117, in which over 69 per cent attested soldiers' families (1991, 464).

Epitaphs indicate that ordinary *milites* mostly tended to marry in their later 30s; relatively few younger soldiers were wed (Phang 2001, 164–90). This projection suggests that in any normal, long-established Roman military unit the proportion of married men would have been around a third, but not plausibly very much more. For years it would have been much lower in newly established units, largely comprising recently levied, younger soldiers, and would have dipped again as the surviving first recruits were discharged *en masse* after about twenty-five years (events of a kind apparently detectable in the recruitment data for *cohors XX Palmyrenorum*: Kennedy 1994).

On the other hand, the foregoing covers only wives who were, or became on their husband's *honesta missio*, 'official'. The common caveat in diplomas limiting legal recognition of wives to one per man implies polygamy had been encountered among some auxiliaries, although no specific evidence for this practice is known to me. Much more certainly, the foregoing numbers do not represent the total proportion of *milites* with female partners, as they exclude women not regarded as wives, generally slave or freedwomen concubines. We have no numerical data for these additional women, which could well have taken the total of soldiers with female partners towards half—although where there were offspring, men had an incentive to marry the mother, to legitimize their children. Of course this does not include any soldiers who chose male partners instead of female (fairly uncontroversial in Roman society, so long as the soldier was

perceived to be dominant, and the partner was not a citizen: Williams 2010).

How many soldiers' children does all this imply? Might we guess at an average somewhere between 0.5 and 1 per wife at any one time? Our notional established milliary unit is likely to have supported some hundreds of children at any one time—though older children were doubtless becoming part of the military community's work-force.

Other Components of Soldiers' familiae

The Roman *familia* also included slaves and servants, possession or employment of whom by soldiers was not covered by any ban. Some *milites* certainly retained domestic slaves or freed(women). Demographic patterns also indicate that many soldiers will have lost their fathers before or early in their service, and so will have found themselves responsible for widowed mothers and unmarried siblings who, if not already living nearby (with some sons following fathers into the armies), likely tended to move close to their source of maintenance and protection. With some veterans also settling near their former comrades, then, especially at the permanent stations of long-established units during the middle empire, locally resident military *familiae* will have comprised a further body of people comparable in scale to, or even outnumbering, the garrison itself. And this is not even to consider more loosely affiliated groups, such as 'traders and prostitutes' who may indeed also have sought a living from the soldiers' purses.

'Extended Military Communities': Scale and Composition

Typically, then, it seems that at the hundreds of garrison stations around the empire in the second and third centuries AD, the bodies of resident soldiers formed the core, and *raison d'être*, of social entities totalling roughly twice the size, perhaps even three times larger. Since everyone within them took not only their living, but also their social position and sense of identity from their intimate ties to the military, these entities may be called 'extended military communities'. I use the term 'extended military communities' to differentiate these collectivities from groupings of soldiers alone (James forthcoming 2018: for extended 'military communities' in this sense see James 2001b; 2001a; 2002, 42–3; and Haynes 2013, 10, 77). Stoll has considered equivalent German concepts, *Militärgesellschaft* or *Garnisonsgesellschaft* (military society or garrison society: 2006, 281).

An Extended Military Community at Dura

Did such an extended military community exist at Dura? Previously, this has hardly been considered, and certainly

not in any detail, even by Pollard or Stoll. Pollard mentioned soldiers' families (e.g. 2000, 56), but did not discuss military servants, and generally still conceptualized Dura in terms of soldiers and civilians. Stoll discussed soldiers' dependants in the East, but his focus remained on the soldiers themselves as the significant actors in a strictly qualitative account, which did not consider the scale of the dependent body or its implications (2001, 104–13, 359). A later work more strongly emphasizing the significance of military dependants was focused mainly on the German provinces (Stoll 2006, 261–85). Leriche has in passing mentioned new civilians arriving with the soldiers (Leriche et al. 2011, 35). However, generally Dura's military population has continued to be discussed in terms just of soldiers, up to Baird's study of Dura's housing, which demonstrated awareness of the likely presence of soldiers' *familiae*, and identified material evidence likely attesting them in military accommodation (Baird 2014, 115–28).

The foregoing general picture of extended military communities is a composite, built up from evidence widely scattered through the ancient sources, including epigraphy, iconography, and the archaeology of military bases and adjacent settlements mostly along the northern frontiers. The ancillary categories of military-associated people are relatively hard to 'see' directly, since they were generally beneath the attention of ancient writers, and in many other texts and iconography, by comparison with *milites*, appear only occasionally and peripherally—but they are attested, e.g. on tombstones and in papyri. In the archaeological record, their presence is often difficult to distinguish from the activities of the soldiers. Trying to detect them is somewhat analogous to the quest to see exoplanets against the immensely brighter glare of the distant stars around which they orbit, but military dependants can sometimes be identified, e.g. through the women's and children's shoes at Vindolanda, and in infant burials and distributions of feminine accoutrements at other sites.

The evidence from Dura for soldiers' dependants is also limited, but in quality and quantity still compares favourably with that from other Roman military sites, and indeed indicates the presence of the expected extended military community. As we saw, it has been argued that the double rations drawn by the cavalrymen of *cohors XX Palmyrenorum* indicated that each *eques* was also supplied to feed his *calo*. There is also a letter regarding the supply of barley to muleteers apparently attached to the vexillation of *cohors XX Palmyrenorum* at Appadana (*P. Dura* 64.A.9; Haynes 2013, 178). The epitaph of Julius Terentius, tribune of *cohors XX Palmyrenorum*, was set up by his wife, indicating she was residing with him when he died in service (Welles 1941; *PR* 9.1, 176–85, no. 939, pl. XXI). A dedication in the 'Dolicheneum' to the centurion M. Antonius Valentinus by his freedman, Antonius Agatocles, included the phrase '*eiusque omnium*' making it 'possible that Valentinus had a considerable household,

perhaps made up of a wife and children as well as of slaves and freedmen' (*PR* 9.3, 107–10, no. 970). Glimpses of family life in the ranks are provided by a papyrus of AD 254 documenting the divorce of a legionary of *IV Scythica*, Julius Antiochus, from Aurelia Amimma, 'a woman of Dura' (*P. Dura* 32: AD 254), and by a fragmentary letter attesting another soldier accompanied by his family on outpostting apparently from Dura to Becchufayn (*P. Dura* 46).

With regard to archaeology, Baird's work on artefact distribution strongly indicates numerous women living inside the base area. For example, women's hairpins are strongly concentrated within it (Baird 2014, 125, 223–5). Military housing in block E8 also produced many bracelets, which in the necropolis were associated only with women and children (Baird 2014, 220). Another characteristic of the military base zone was a much higher density of ovens than in the civil town, indicating cooking and baking facilities, e.g. in block E8 (Baird 2014, 119). Similar densities in surrounding blocks are indicated by magnetometry anomalies. These may in effect be an archaeological signature of the soldiers' *familiae*, while the high density of plaster troughs, thought to be for watering horses, mules, or camels (Baird 2014, 116) may primarily attest the work of the paramilitary servants.

Actual remains of soldiers' dependants also seem to have been found inside the base. Room J7-23 of the 'barrack' housing by the city wall produced the 'bones of a child' (unpublished typescript notes by Henry Pearson, Yale Dura archive), while the skeleton of a teenager was found in block E8, apparently a victim of the final Sasanian sack of the city (in room E8-18, recorded in Frank Brown's notebook, Yale Dura archive; Fig. 5.64).

The foregoing evidence indicates that, *contra* Pollard (2000, 56), most dependants as well as soldiers lived inside the third-century base. However, some elements of the extended military community certainly lived outside, notably in L7-A, the 'House of the Scribes', where labelled ceiling paintings portray Heliodorus the *actarius*, other soldiers, and a woman called Thaamare (Fig. 8.20; *PR* 6, 283–308, pl. II). As some were found buried under a floor, the roof slab portraits did belong to the house, and were not material brought in from elsewhere during the building of the anti-siege rampart c.254–5 which engulfed and preserved the building (pp. 229–230). In room 2 of the small house G5-C on the north edge of the agora district, elaborate dipinti attest a body of entertainers and prostitutes (*PR* 9.1, 115–18, 166–7, and nos. 940 and 941, 203–65, pl. XIX). The house is generally seen as effectively a military-run brothel, staffed by army-owned slaves (Pollard 2000, 53–4).

Welles did also envisage extensive settlement of veterans in and around the city, 'where they and their families had been living perhaps half their lives' (1951, 271), and where they doubtless retained intimate ties with the serving military community. Such continuing links in the region are seen in *P. Dura* 26, a document recording a land purchase on the

lower Khabur by a veteran of *cohors III Augusta Thracum*, Julius Demetrius, witnessed by serving comrades (p. 308). How big was the community of veterans and their dependents at Dura? Haynes has revisited Laporte's work to consider the possible numbers of such people associated with the 500-strong auxiliary garrison of *cohors II Sardorum* at Rapidum in Algeria, suggesting locally settled veterans were unlikely to total much more than 100 at any one time, their dependents probably amounting to rather less than three times that figure (Haynes 2013, 357; after Laporte 1989, 16, 110–11, 125–6, 341 n. 12). We would expect numbers to be

higher for the much larger Dura garrison, even if few legionaries settled locally (p. 308).

To summarize, both our wider picture of middle imperial military formations, and the specific data from Dura, point to the contingents of soldiers based in the city being accompanied by similar, or even significantly larger numbers of people comprising their *familiae*, as wives, children, blood relatives, clients, employees, or property. Recognizing this has implications for rethinking the nature of Roman-era Dura as far-reaching as rewriting the history of the military garrison itself.

What and Where? Revised Overview of Base Extent

THE MILITARY QUARTER — OR THIRD? THE BASE AS NOW SEEN

Archaeological evidence indicates that, during the final half-century of the life of the city, the area directly annexed by the military was significantly larger than the original excavators realized (Pl. XXII). In addition to concentrations of soldiers around the gates and defences, and at various places within the ‘civil’ town, the military came to control a single continuous swathe of the urban interior, comprising the entire N part of the walled area from the W defences to the river cliffs, and extending as far as the S end of the Citadel, plus the floor of the inner wadi right down to Lower Main St opposite the (by Durene standards) showy C3 bath, which it also apparently built.

This area totals c.13.5 ha (c.33 acres)—a literal quarter of the intramural area which today covers c.52 ha (c.118 acres, measured from the CAD plan of the city by Dan Stewart; both city and base were slightly bigger in antiquity, before loss of the River Gate and parts of the Citadel).

Conformation of the Base Area

In its final form, the base included several distinct zones (Pl. XXIII). The NW part of the city had become a military enclosure, bounded on the E side by a continuous wall down the W side of G St, incorporating the street facades of the E3 bath and E4 house. On the S it was defined by the ‘camp wall’ from the city defences to D St; with no sign of a wall across blocks F5 or F7, the perimeter between D and F Sts is inferred. It must be presumed that, as to the W, the 8th-St-fronting properties of the two blocks were taken over, but that the party walls comprising the boundary with civil housing to the S was not further elaborated. These lines converged on the amphitheatre, which formed the corner of the enclosure.

This perimeter of the NW enclosure involved physically blocking Wall, A, C, D, and 10th Sts. A major entrance was on 8th St, at G St between the amphitheatre and the E4

house. However, this does not appear to have possessed a physical gate structure like that through the camp wall at B St. F St also appears to have remained open, with indications that it formed the main N–S route into this zone. E St may also have remained accessible. Another entrance is inferred close to the N city wall at the end of G St, connecting the enclosure with the far N part of the city on the line of 12th St. There was also a postern gate to the N wadi by the Tower of the Archers. (Study of the mud-brick urban defences by the Temple of Bêl indicates that the breach taking the Ottoman road and modern track was cut long after the city was abandoned; the ancient wall was continuous here, the base did not have its own major external gate.)

Within the NW enclosure lay the administrative heart of the mature base. The *principia* was roughly in the middle, fronting onto 10th St’s widened and colonnaded central circulation area, another administrative compound in the Temple of Azzanathkona behind it, and an officer’s residence immediately to the W. Further W probably lay the granaries, to its E the E3 bathing complex, while the SE corner of the enclosure was formed by the amphitheatre, built on the ruins of an earlier bath. There were also several active temples, two preserved existing sanctuaries (those of Bêl and Azzanathkona), another heavily transformed one outside the *principia* (which itself incorporated a shrine and altar), plus a Mithraeum. A large pre-existing open area around the Temple of Bêl was also apparently maintained. The rest of the enclosure, comprising blocks of former civilian housing, was with exceptions generally preserved and converted to military accommodation, through subdivision of rooms, rearranging doorways, and partly infilling courtyards with more roofed space. In some blocks new build was extended out onto roadways, halving some in width, apparently entirely overbuilding other stretches of street. This additional military accommodation was, in contrast to the civil housing stock, irregular in plan and relatively flimsy in construction. However, positions of series of roof-beams anchored into the city walls corresponding to surviving foundations show that some entirely new structures built against the defences in J7 stood two storeys high.

A second enclosure subdividing the base area, created in the far N of the city, was defined in a different way. Road closures created by extending the E3 bath building across G St, and locating the corner of the Roman Palace to project across I St, effectively enclosed everything behind the N frontage of 10th St. Henceforth this zone was accessible from the S only via the broad H St, although the entrance to this zone beside the X7 'Dolicheneum' again appears to have lacked a physical gate. While its main axis was H St, internally this N enclosure also intercommunicated directly with the NW enclosure via the 12th St entrance previously mentioned.

Apart from the 'Dolicheneum', adjacent excavated military housing in X7, and the Roman Palace complex, little is known with certainty of this area, parts of which are eroded to bedrock. The enigmatic X9 temple remains unpublished. The rest, to judge from magnetometry and a few other surface indications, was probably occupied by more military housing, converted Parthian-era civil stock supplemented, as in X7, by irregular additions.

The N enclosure was, like the NW zone, largely defined by the city defences, along the N wadi and river cliff. Facing the city, again like much of the NW enclosure boundary running down G St, more than half of the city-facing perimeter of the N enclosure comprised blank walls, i.e. the unbroken southern exterior of the Roman Palace. However, the W half comprised the N frontage of 10th St, comprising buildings facing out of the enclosure in blocks X7 and E1. These included the 'Dolicheneum', but between temple and Palace comprised ordinary soldiers' accommodation. The remaining sector, the S end of unexcavated block E1, was likely similar. Magnetometry indicates that E1 had been fully built up with normal civil housing, all presumably converted like E8. Consequently, for the W half of the N enclosure, its physical boundary was actually the back wall line of the 10th St-fronting buildings.

Those occupying the properties facing onto the N side of 10th St were therefore outside the N enclosure, with no direct access to it. Rather, they operated in a third zone of military control. Outside and between the NW and N enclosures, S and E of the G/10th St intersection, block E2 shows the structural encroachments onto streets characteristic of conversion of civil to military housing seen at, e.g., J2. It also seems very likely that the military occupied all properties surrounding the critical H St/8th St/Wadi Ascent Road junction, where the major street axes of the two plateau military enclosures met the Wadi Ascent Road, the principal route from the lower base area, and the civil town's main plateau street axis. Hence, as in F5 and F7, at least the 8th St frontage properties of block F1 were probably in military hands. Further, these considerations imply that the unexplored area S of 10th St between H St and the river- and wadi cliffs (nominally X2-4-6-8) was effectively surrounded by known or inferred military

possessions. It, too, was almost certainly taken over by the garrison.

The military zone also included the N frontage of the Wadi Ascent Road from the H/8th St junction all the way to the bottom of the slope, and probably much further (below). Towards the foot of the slope a spur road ran E towards the N door of the Citadel, along the back wall of the 'Temple of the Roman Archers' and adjacent house in A1, which line seems to have formed yet another physical boundary within the military zone. Indeed, the area defined by the Wadi Ascent Road, the quarried N face of the inner wadi, the river defences, the N end of the Citadel, and the rear of the Temple of the Roman Archers seems to have constituted yet another *de facto* enclosure, presumably comprising housing adapted for soldiers and their dependants. This area also communicated with the plateau via a staircase behind the river-cliff wall, and controlled another small postern leading to the river, until a wall-walk access stair was built across it.

Discovery of the A1 Temple of the Roman Archers, containing an inscription commemorating its own building and enlargement of a military *campus*, indicates a substantial area of the wadi floor was also in military hands. This was confirmed by identification in 2011 of a second shrine, the Military Zeus Temple. Magnetometry indicates that the tract of wadi floor in front of the Temple of the Roman Archers, in the shadow of the Citadel, was open ground corresponding to the epigraphically attested *campus*. But where was the S limit of military control in the wadi?

Review of evidence from around the twin S entrances to the Citadel indicates another hitherto unrecognized area of military buildings extending into the N side of block B2, separated from adjacent civilian properties simply by party walls. Arranged around a courtyard, the requisitioned part of B2 probably served some administrative function. Neither was the Citadel itself, although part-ruinous, reduced to a glorified watch-tower; structural traces including beam holes in the Citadel walls, both inside and outside, indicate further military housing built within it and against its S defences. Partly two-storey, this shared the characteristic features of that built against the W defences in J7.

Roman military occupation thus included the Citadel interior and also extended the entire length of the wadi floor along the face of its defences, comprising temples at the N end, the *campus* in the middle, with soldiers' housing, and apparently further administrative structures, extending around its S end.

Realization that the military zone also included part of block B2 means that it extended effectively to Lower Main St opposite the C3 baths, in the heart of the civil town, not far from the River Gate. This raises the issues of where lay the W boundary of military control of the wadi floor, and how much more ground on the N side of Lower Main St might also have been taken over by the garrison.

Was the Base Bigger Still?

As we have seen, W of G St the Romans took 8th St as the main axial road for their NW military enclosure, occupying everything to the N of it, and all properties lining its S side—control almost certainly extending to the critical junction with H St. N of the junction, H St became the axis of the second, N military enclosure. E of the 8th/H St junction the Wadi Ascent Road connected the plateau base area with military possessions in the wadi and Citadel zone, where military occupation effectively reached Lower Main St. (The exact route by which the Wadi Ascent Road ran round the *campus* and articulated with Lower Main St is unclear, but it most likely joined the latter beside the B2 military compound.) The W limit of military control in the wadi may simply have been the N/E street frontage of the Wadi Ascent Road, leaving properties overlooking the *campus* on the steep W side of the wadi in civilian hands.

However, there is a strong possibility that, just as they acquired all properties lining the S side of 8th St, the military also entirely took over both sides of its continuation, the Wadi Ascent Road (Pl. XXII). This continuous road-line, running from Lower Main St near the River Gate to the W defences of the city, would then have formed a literal principal street, whether or not labelled '*via principalis*', completely within the army-controlled area, linking the entire military zone together.

Indeed, on present evidence, it is wholly possible that the unified base area was significantly larger even than this: the garrison might well have taken over the entire N branch of the inner wadi, including all properties occupying the steep W slope overlooking *campus* and Citadel, as well as its floor, N, and E sides. The base area would then have occupied c.15.5 ha (c.38 acres), i.e. c.30 per cent or nearer a third than a quarter of the intramural area. However, testing this hypothesis would require substantial new excavation.

When? New Outline of Development and Chronology

Such was the extent of the base in its final form, before the disruptions of the 250s. But how and when did it reach this extent and conformation? As we have seen, the small number of direct epigraphic dates coming from key structures in the military base concentrate c.209–16. While the Yale expedition were aware that there had been resident Roman auxiliaries from the later second century, and also identified (mostly erroneously) some components as belonging to the 220s–250s, they took this ‘epigraphic dating horizon’ as indicating that the military base, from camp wall to *principia* to baths, amphitheatre, and *campus*, including creation of most military accommodation, was overwhelmingly a rapid creation of the 210s. This notion of a sudden military transformation of the urban fabric at that time supposedly reflected a radical expansion of numbers of the Roman garrison—resulting in traumatic shock to the city.

EPIGRAPHIC EVIDENCE FOR BASE CHRONOLOGY

The concentration of dated inscriptions from the military base does seem to constitute a tight ‘epigraphic dating horizon’ c.209–16, or indeed c.209–12 if the amphitheatre was really an opportunistic *coda*. It certainly represents a major military building campaign. However, it has been misinterpreted, and its significance exaggerated, especially in taking it to mark effective creation of the base.

Central to the ‘epigraphic horizon’, of course, is the dating of the *principia* to 211–12, with rebuilding of the Mithraeum around the same time (pp. 242–243). Other components of the programme may be implied by epigraphic information. Notably the detail of the undated inscription attesting building of the A1 Temple of the Roman Archers and expansion of the *campus* plausibly fits in the context of the 210s. However, the Yale project team pushed interpretation of the epigraphic evidence much too far in employing other texts to date military structures.

While the ‘camp wall’ may well also have been built c.210, the epigraphic argument for this, comprising an inscription of debated reading not even found in proximity to the wall, is flimsy in the extreme (p. 135). Similar misuse of epigraphic evidence is seen in the case of the three altars to Dolichenus found in X7. The earliest altar, while dedicated in 211, manifestly does not, as Perkins argued, date construction of the temple outside which it stood (p. 181); rather it was a very small altar placed outside a pre-existing building, providing no more than a *terminus ante quem* for the temple’s foundation, in my view most likely in the late Parthian era. It also provides a *terminus ante quem* for the military presence in the far N corner of town, which likewise could have significantly pre-dated the altar. Even more glaringly, Perkins took the two later Dolichenus altars found outside the temple to date construction of military accommodation beside and behind it, thereby pushed to the very last years of Roman occupation (p. 182). This is completely spurious; there is no detectable connection whatsoever between altars and ‘barracks’.

In fact, the dated epigraphic concentration actually includes only three building inscriptions as such. Other inscriptions directly attest or clearly imply the existence of important military structures across a broad area pre-dating the 210s building campaign by decades, i.e. the Early Mithraeum (p. 127), and most importantly the military compound in the Temple of Azzanathkona (p. 76). The ‘*campus ampliatus*’ text implies an earlier exercise ground in the wadi. The very limited epigraphy is, in fact, consistent with military takeover of a substantial area of the city well before the 210s. Indeed, archaeological information shows that even the keystone of the epigraphic arch, the *principia* evidence, does not attest what was often the central, *initial* act of creation of a base (as the Yale team effectively took it to be: p. 30)—establishment of its HQ building. Rather, the *principia* was a subsequent insertion into an existing military built environment. Close scrutiny of the archaeological evidence reveals this longer-developing and more complex picture in some detail.

ARCHAEOLOGICAL RELATIONS AND SEQUENCES: RELATIVE CHRONOLOGY

Where the epigraphy provides some close absolute dates for specific buildings, the archaeological evidence is of course inherently less chronologically precise. Although structural details and (sometimes) recorded associated finds may show we are dealing with remains attesting the city's final, Roman-dominated century of life, for finer chronology within that period the evidence is largely relative (i.e. this structure certainly pre-dates that one, but we cannot be certain whether by a month, a year, or decades), and interpretations are more probabilistic (e.g. considerations X and Y suggest that, within the period of military presence, the sequence was shorter or longer).

Nevertheless, archaeology is very powerful as our basic tool for understanding the conformation and development of the base. The combined programme of archival research and fieldwork identified some highly informative archaeological relations and sequences, either inadequately explained or entirely unnoticed by the excavators. These comprise:

- stratigraphic sequences within structures: notably a substantially longer and more complex sequence of development of the E3 bath; extensively revised phasing of F3 bath and amphitheatre; identification of two major constructional phases in the supposedly single-phase M7 bath; and evidence of at least two phases of military occupation in accommodation areas, not only in E4 but also E8 and J7;
- stratigraphic relations between base components: most critically that the N colonnade of 10th St, built with the *principia*, was erected later than the angled E3 bath;
- significant stratigraphic equivalences between structures suggesting they were contemporaneous: virtually certain in the case of the two 10th St colonnades, and very probable for the D St and G St piped water mains comprising parts of a single hydraulic supply scheme;
- significant spatial relations: crucially, the routing of the G St water main around the projecting E3 bath, indicating the latter existed when the pipe was laid; similarly, the D St main respecting the Azzanathkona military compound forehall and the J1 gate pier, indicating these existed when it was laid.

Key sets of relations are summarized visually in Fig. 11.1, and described below.

The E3 Bath, 10th St, and the Principia

A key set of relations centres on the E3 bath. One of the most important conclusions of the project was that the extant building, angled to the street grid and blocking 10th St, was actually the second bath building on the site: it overlay an

earlier, smaller facility, aligned on the street grid, occupying the S end of E3. It is unclear when this early bath was built or how long it stood before it was succeeded by the larger angled building, which itself underwent important subsequent modifications—a substantial sequence indicating considerable lapse of time. The angled bath also exhibited three critical archaeological relations with other archaeological features, one on its W side, the others to its E, which are highly informative regarding the wider base development sequence.

The widened and colonnaded stretch of 10th St articulated the core of the post-210 base, terminating at one end with the *principia*, and at the other with the E3 bath. The N colonnade physically connected the two complexes; details of its relations to each, in plan and stratigraphically, are highly significant.

The N colonnade was a single build, part of a scheme doubling the width of 10th St by demolishing the S part of E5. A new frontage for E5 was built several metres N of its old line, forming the rear wall of a colonnade mirroring another across 10th St. The colonnade ran from the SE corner entrance of the *principia* forecourt all the way to the end of the E3 bath's heated suite. The final, engaged column at the W end was integral to the wall of the *principia*, showing HQ and colonnade were built together. In contrast, the final column at the E end was built up against the E3 bath reservoir substructure: the colonnade was stratigraphically later. The bath building, then, was standing before the colonnade (Fig. 5.29) was built. This is not necessarily of great significance on its own. The bath block was of different, brick and concrete construction, and would have to be built separately from the colonnade. The elapse of time between the two phases might have been as little as weeks. However, other indications in the plan and location of the angled E3 bath suggest it was standing before the colonnaded street widening was even conceived.

The N colonnade roof was carried across the line of F St by columns on both sides, allowing N–S traffic to cross it while still facilitating covered passage almost all the way from *principia* to bath. *Almost* all the way: while at its W end it neatly debouches directly onto the S colonnade of the *principia*, in the E it terminates, somewhat awkwardly, against the wall of the main reservoir structure serving the bath. To enter the facility, bathers had to step out into the open air, and pass round the corner of the building to its portal (Fig. 5.29). Since the 10th St aggrandizement and creation of the *principia* clearly indicate concern to create a visually impressive spatial complex, it seems odd that the bath should be not only at a peculiar angle, but positioned so that its articulation with the approach route is a mess.

The odd *angle* of the building is not the main focus here. This was a product of the same consideration which led to the bath's strange 10th-St-straddling positioning: it was angled to conform to the off-grid course of 10th St between E3 and E1 (Fig. 5.35), and served the secondary purpose of

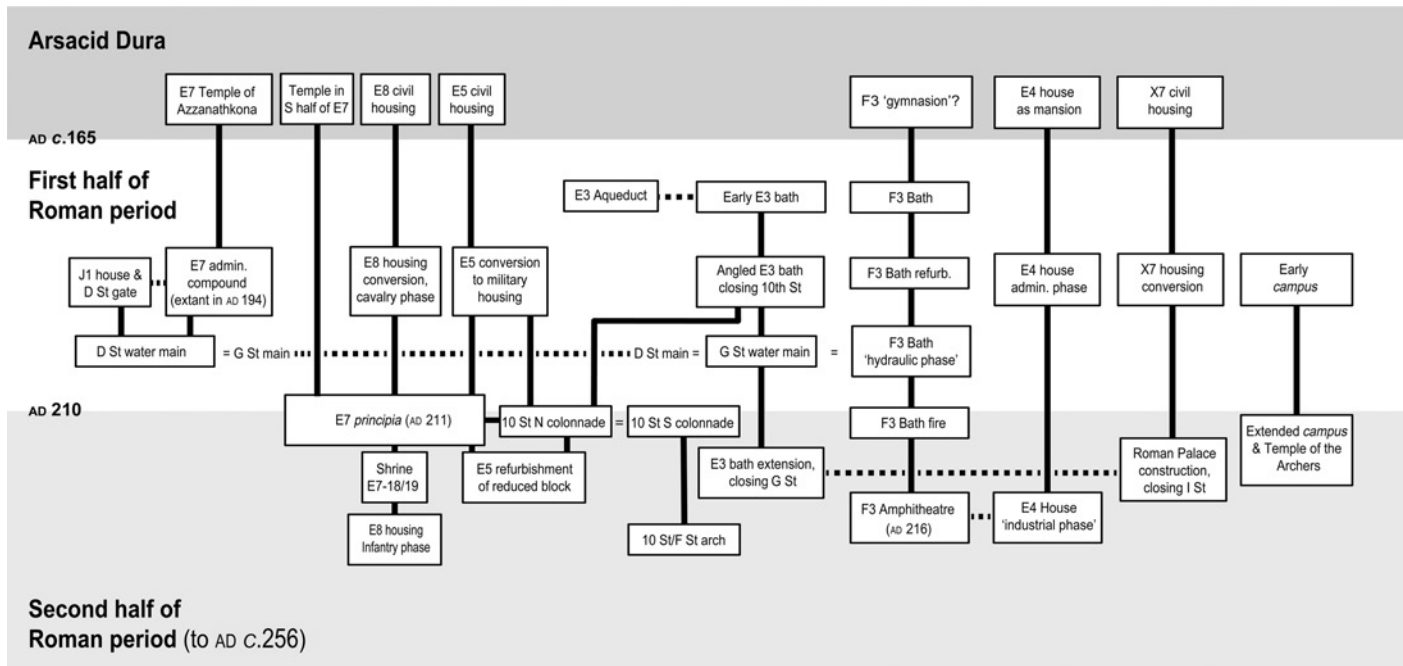


Fig. 11.1. Diagram summarizing observed sequences and inferred relations between structures and features of the military base, against conventional Dura chronology, with elapsed time running from top to bottom (the opposite of a Harris matrix representing stratigraphy, but chosen to correspond with the complementary garrison chronology diagram, Fig. 9.1). A great deal of military-related conversion and construction activity, in several cases multiple phases, is identified as antedating the building campaign of the 210s, attesting prior existence of a substantial base established over earlier decades.

forming part of an early boundary line on the W side of G St by blocking 10th St. The actual position, and internal disposition, of the second E3 bath are more immediately relevant. Both make sense if the bath had been laid out in relation not to the widened 10th St, but to the earlier, narrower carriageway, when block E3 still extended several metres further S (Fig. 5.36, b). The whole of the bath's heated suite would then have stood within the footprint of E3, not projecting awkwardly beyond it into widened 10th St as it subsequently did. Most tellingly, its entrance was aligned on, and formed the truncated end, of the narrower, pre-colonnade 10th St.

When the second, angled E3 bath was built, then, the widening of 10th St had yet to be conceived. When 10th St was widened, the planners of its N colonnade had to deal with the *fait accompli* of the angled bath building, explaining the awkward junction. Including the first bath, these acts of construction represent three different successive schemes for military reorganization of the area. The sequence of development in this core area of the base was, then, much more complex and prolonged than the excavators realized; much of it significantly antedated the 210s, attesting existence of a military base substantial enough to include Roman bathing facilities well back into the second century—indeed two baths, in E3–E4, and also in F3 (p. 262). This sequence has major implications for our understanding of the place of the

principia in the scheme of things, and for overall evolution of the base.

The Principia and Blocks E8 and E5

Evidence from the *principia* and its immediate context similarly suggests much more of the NW plateau zone was converted to military use well before 210 than has hitherto been thought. Notably, the HQ complex possessed spatial and stratigraphic relations with block E8 to its S, which was entirely converted to soldiers' accommodation (Figs 5.12 and 5.63). Evidence within E8 indicates two distinct periods of military use, the first with troughs for many animals suggesting occupation by cavalry, the second apparently by infantry. The first of these two phases appears to precede construction of the *principia* and its new associated 10th St-line sanctuary E7-18/19, which involved partial demolition of E8's N street frontage, although this was subsequently rebuilt in irregular style. E8, it seems, already comprised well-established military accommodation before the *principia* was conceived.

The same was apparently true of E5. Construction of the E side of the *principia* involved demolition of the E St frontage of residential buildings in E5, rooms subsequently refurbished with the *principia*'s exterior forming their new W walls. It is to be expected that, standing as it did right in the heart of the known base area, the housing in E5 would

have been given over to soldiers in the third century. However, an interesting detail hints at earlier military occupation of the block. During construction of the *principia* cross-hall, a niche, serving the adjacent room in the E5 housing, was designed into its outer wall. This could indicate meticulous planning not only of the *principia*, but also of the fine detail of military usage of housing being simultaneously converted in the adjacent E5. But more likely, it simply reproduced a niche which had existed in the same position in the demolished E5 wall—because E5 had *already* been converted to military housing before the *principia* was projected, its occupancy was settled, and the necessary building and refurbishment work was undertaken with continuity and minimal disruption in mind. It is, indeed, highly likely that E5 was already military housing before the 210s, as it lies between the E3 bath, now seen to have a two-phase pre-*principia* history, and the Temple of Azzanathkona, partly in military hands decades before the *principia* was built.

The E3 Bath, G St Water Main, and F3 Bath

Returning to the E3 bath complex, this also produced evidence with implications for military occupation to its E, where it exhibited two important relationships, the first spatial, the second stratigraphic, with a ceramic-pipe water main installed under the surface of G St. The pipe was not traced for its full length, but it almost certainly supplied the F3 bath hydraulic system from pumping machinery inferred at Tower 5. The exact line taken by the pipe past the E3 bath is significant; it deviated round the corner of *apodyterium* E3-A, which projected slightly into the carriageway of G St, proving the main was laid after construction of the bath. Then, sometime after the pipe was established, room E3-B of the bath complex was extended over it, blocking G St as well as 10th St. We will return to the significance of this latest relationship below.

The course of the G St main around the E3 bath provides a crucial link between the E3 sequence and the revised phasing of the F3 bath/amphitheatre area. During its life the F3 bath received new reservoirs and a ceramic pipe distribution system, surely supplied by the G St main; they are taken to represent a single hydraulic scheme. However, archaeological evidence indicates that this 'hydraulic phase' was actually the third manifestation of the F3 bath, implying that it had been in use for a prolonged period (which, on different arguments, Brown also believed). However, the implication of the inferred relations between F3 bath, G St main, and E3 sequence is that the established idea that the E3 bath was entirely later than the F3 establishment, and intended to replace the latter after it burned down, is wrong. The angled E3 bath already stood when F3 got its 'hydraulic makeover'. The two baths had been intended to function simultaneously. Indeed, evidence that both baths had previous phases shows that they had coexisted for

some time, probably decades, before 216 when the F3 bath was succeeded by the amphitheatre.

The F3 Sequence and the E4 House

Between the two baths lay another important military facility, the large house in E4. This, hitherto thought to have been mostly soldiers' accommodation, is now reinterpreted as having been initially a combined officer's residence and administrative centre, perhaps even a contingent HQ, subsequently converted to a food processing facility and guard-room. The changeover appears to roughly correspond with conversion of the adjacent part of F3 from bath *palaestra* to amphitheatre, and so the wider garrison reorganization and building programme of the 210s—making E4's first military phase plausibly second-century, as indeed the excavators had thought.

The E3 Bath, Roman Palace, and 10th St Boundary

The G St water main's direct stratigraphic relation with the E3 bath building was created when room E3-B was extended to overlie the pipe. This enhanced amenities within the bath complex, but it is argued a primary reason for the modification was to entirely block G St as well as 10th St. Why? The explanation lies in the way this new street-blocking mirrors a second road closure on the same line to the E (Fig. 6.1). Overbuilding G St henceforth blocked movement N from 10th St; moving eastwards past unexcavated block E1, the next intersection was H St, the major N-S street axis of the town, which was left open. Continuing E we come to X7, with the 'Dolicheneum' and military housing. This had been defined on its E side by I St, established more or less on its designated grid line (Fig. 6.17). However, on excavation, access along I St from 10th St was found to be precisely blocked by the corner of another angled official building—the Roman Palace. The corner of its outer court projected right across I St street in a manner strikingly mirroring E3-B's closure of G St. E of this point, except for the Palace's 10th St entrance, its long, unbroken S perimeter wall ran right to the cliff edge. As we saw above, the two road closures and the footprint of the Palace created a continuous barrier to movement along the N side of 10th St from G St to the river cliff, with a single passage through it, on the axial H St.

In plan, the locations and manner of the two street blockings create a symmetry around the H St access route from G St to I St which is unlikely to be incidental, and suggests a single scheme (Fig. 6.1). This spatial argument suggests that the E3 bath extension across G St was simultaneous with building of the Palace, now seen as probably the grandest part of the building campaign of the 210s. The highly unusual and characteristic composite, timber-laced construction of room 28 of the Roman Palace is paralleled only in the *principia* rear range (rooms 4–6), suggesting the two

complexes were built around the same time, again pointing towards the 210s.

The S end of X7 included the 'Dolicheneum' and another area of revealed military accommodation. As we saw, the original publication concluded, on spurious epigraphic arguments and misreading of the excavated layout, that the X7 'barracks' were very late additions to the base, belonging to the 250s, so created decades after the Palace was built. However, the excavated plan of X7 rather indicates that this military housing already existed when the Palace was laid out and I St blocked. The perimeter of the housing respected the line of the 10th/I St junction while, as elsewhere in the base area, extending onto just the adjacent half of the I St carriageway, indicating both streets were in use when the housing was created. Its I St frontage also incorporated a very small projecting street-side chamber, proposed to be one of a number of watch posts across the base, here controlling access to and from 10th St. This 'sentry-box' was partly destroyed by the corner of the Roman Palace forecourt which subsequently blocked the street.

This revised sequence suggests that the city quarter E of G St, from the N frontage of 10th St northwards, had already been taken over by the military and largely converted to soldiers' housing before the Roman Palace was planned, or the angled E3 bath extended across G St. Movements of personnel in and out of the area were initially regulated by surveillance of 10th St's intersections with G, H, and I Sts, the latter at least boasting a 'sentry box'. Subsequently G and I Sts were permanently blocked off, creating a 'hard' military enclosure with access to the NW enclosure on 12th St, and a single entrance from the civil town on the great H St. This second military phase was integral with construction of the Palace, probably during the 210s. We currently have no evidence for the date of establishment of the first military phase, but it was plausibly later second century.

Water Supplies and the Chronology of Dura's Baths

Several water supply systems were identified at Dura, mostly running from an origin somewhere around the N city wall. These comprised the raised aqueduct supplying the E3 bath, and several buried, pressurized ceramic pipelines. One of the latter ran along D St, presumed to be that which eventually debouched in the M7 bath near the Palmyrene Gate. Another pipe running down G St, past the E3 bath building (which was subsequently extended over it), is taken to be the supply for F3's hydraulic system. Brown thought the 'hydraulic station' feeding these supply lines, which he envisaged as the top of a series of water wheels up the side of the N wadi, lay on the city wall between the lines F and G Sts, around where the E3 aqueduct and G St mains intersected the defences (PR 6, 101). However, no trace of this station, or of

the hypothesized water wheels, has been found. It is more likely that the pumping system, whatever form it took, lay around Tower 5, with header tanks feeding pipes or channels running along the top of the wadi wall to the departure points for the various bath supply lines. In the new reconstruction drawing (Pl. XXVI), a system of force pumps and tanks is envisaged near the edge of the cliff, raising water to a header tank constructed on top of Tower 5 itself. Another pipe may be inferred running from the Tower 5 vicinity along the cliff-top wall to supply the private bath of the Roman Palace. The C3 bath in the lower town also had a pressurized pipeline, which ran from the direction of the River Gate, implying a second pumping system with header tank, perhaps atop the gate itself.

Brown's sequential and chronological scheme for these supplies makes little sense. He apparently believed that the N wadi pumping system and G St main had been installed to provide the F3 bath with its hydraulic scheme before the 210s, and that when E3 and M7 were built 'sometime between 210 and 215', the former was supplied by the raised aqueduct, the latter by a new buried pipeline, while an entirely separate system was installed at the River Gate for the new C3 facility (PR 6, 103–4). He thought this partly because he saw E3 as effectively replacing F3, which it did not. As noted, the G St main diverts around E3, which already existed. And why build a raised aqueduct for E3, if one buried pipeline was already in use, and at the time others were being created, for other baths? It makes much better sense if the raised aqueduct feeding E3 was the earliest pumped supply, perhaps initially created for the first E3 bath. It was kept in use for the new, angled facility, which may indeed have been built around the same time as the similar-looking establishments excavated in C3 and M7. The F3 hydraulic makeover was part of the same scheme, as like the C3 and M7 baths it got piped supplies.

The proposed dating of the 'hard' 10th St boundary to the 210s in turn suggests a *terminus ante quem* for the G St water main which it overlies. That, too, could simply have been earlier within the 210s building campaign, although like the angled E3 bath it was laid around, it could instead pre-date that programme entirely. This is potentially a very important point, as it would in turn date the F3 bath ceramic-piped hydraulic scheme.

If Brown was generally right about a single, integrated programme of bath construction/overhaul and water supply provision, but wrong to assume this was part of the 210s programme, then establishing that the E3 angled bath existed before the 210s scheme was devised, combined with the G St stratigraphic sequence, raises the possibility that the F3 hydraulic scheme and creation of the M7 and C3 baths also all dated to sometime before the 210s. Use of ceramic pipes of North African inspiration still fits best with the Severan period, but could then represent an initiative of the late

second century. However, there are also clear indications that the M7 bath, like E3, had more than one major construction phase. Its main heated suite, which closely resembles that of C3, probably replaced an earlier hypocaust block, which likely predated the piped water supply. This raises the possibility that M7, as well as E3 and probably F3, could have been a pre-Severan foundation (Could the C3 bath, as seen, also possibly be a rebuild of an earlier, less grand establishment?).

The evidence for military construction of baths and their water supply systems, then, does not suggest that most belonged to a single concentrated episode around 210 as Brown believed. Rather, as for other parts of the base environment, it looks to have been more incremental, with much or even most of it being significantly earlier—some of it much earlier than hitherto believed. The elevated, gravity-fed aqueduct supplying the E3 bath and the buried, pressurized ceramic pipes supplying F3, M7, and C3 represent two very different approaches to water supply. If the E3 hydraulic system had been planned and built at the same time as those for the F3, M7, and C3 baths, it too would presumably have been a piped supply. In reality the angled E3 establishment may have inherited its raised aqueduct channel from the original small bath, incidentally also implying pumping equipment around Tower 5 from an early stage.

J1-A 'House of the Prefect' and the D St Main

The J1-A 'House of the Prefect', its integral guardroom (J1-A8), and associated gate across D St are not directly dated. However, the D St water main respects J1-A's street-gate pier, as well as the porch structure of the E7 Temple of Azzanathkona military compound, which has an epigraphic *terminus ante quem* of 194. The main itself, hitherto thought to belong to the 210s, is now quite possibly somewhat earlier, all suggesting the J1-A house was also a feature of the earlier base layout.

'Floating' Sequences

In stratigraphic terms, other military features of the plateau base area are 'floating' relative to the sequences described. The military housing in J7, confidently ascribed by the excavators to a single phase built in the 210s on the basis of epigraphic dates from the Mithraeum, looks in reality to have been the product of several phases, which cannot all be shown to be stratigraphically later than the 'Middle Mithraeum' epigraphically supposedly dated to 209–11 (p. 129).

Similarly, military conversion of the houses in K5 could be assumed to be dated by the building of the camp wall; however, that event is not directly dated by epigraphy, and even if Gelin's arguments are correct in assigning it to the 210s on the basis of its mud bricks being identical to those on the *principia* (Gelin 2000, 308–11), then, as along 10th St,

creation of a 'hard' perimeter marks consolidation of boundaries, but not necessarily military take-over, which could have been significantly earlier.

It is not possible to relate the Roman military evidence in the Citadel and on the wadi floor to the stratigraphic evidence from the plateau area, except in the most general terms: both formed the final stage of the city's archaeological development. On the basis of the available archaeological evidence alone, we probably would not have realized that the open *campus* area had undergone expansion. We know this from undated epigraphic information which also tells us that the A1 Temple of the Roman Archers was later than an implied early *campus*. Perhaps the newly discovered, and distinctly un-Durene-looking Military Zeus Temple was built when the smaller, early *campus* was established.

To summarize, the picture drawn by stratigraphic information and spatial relations, in a number of key areas—especially the evidence from the *principia* in E7, the E5 housing, the E3 bath, and the structures which relate to them—is one that simply cannot be reconciled with a single, brief, major act of base creation, in which building the *principia* was a central act. The iconic HQ building was, in reality, a relatively late addition within an area of extensive and well-established military infrastructure which, if largely comprising ad hoc conversions, already included at least two Roman baths; probably all the city's *thermae*, except for the private suite in the Roman Palace, existed before the *principia*.

DEVELOPMENT OF THE BASE OVER TIME

We cannot write a fully detailed history of the base, since as we have seen the evidence is too fragmentary, and dating for much of it too approximate. However, we can suggest the most likely outline of development, as a hypothesis which might someday be tested by further excavation.

The concentration of epigraphic dates around 210–16 certainly attests a major campaign of building works, representing a real change in the character of the military facilities. Indeed, in some important regards, archaeological evidence serves further to underline the importance of the building campaign of the 210s, e.g. in that spatial/stratigraphic arguments converge with observations on constructional materials and now techniques to suggest that the Roman Palace also belonged to that period, rather than slightly later as the original excavators believed. However, archaeology also shows that much of the fabric of the base—probably most of it, especially conversion of civil to military housing—actually belonged to the first half of the period of Roman rule. The military administrative compound in the Temple of Azzanathkona existed by 194. Two successive baths stood in E3 before the 210s, whilst the F3 bath already had a complex history by then, as it now seems did the M7

bath. The sequences seen in E4, E5, E8, J7, and X7 all suggest conversion to soldiers' housing before, likely decades before, the 210s. The same may well be true of K5 and other houses on the S frontage of 8th St, with the camp wall marking a secondary consolidation similar to that on N side of 10th St.

This substantial pre-210 base on the northern part of the city plateau, and probably around the Citadel as well, has not hitherto been clearly recognized. Partly due to limited study of the archaeological evidence, it was most immediately because of lack of dated building inscriptions like those which attest the Caracallan building campaign. This absence is simply explained. The earlier garrison was generally minimally adapting existing buildings to military use, work not warranting such commemoration. It also comprised auxiliaries, generally considered less capable than legionaries of raising elaborate new buildings and less inclined to create inscriptions. Insofar as Dura's resident auxiliaries exhibited the 'epigraphic habit', it was applied to the few religious dedications which attest the presence of the early garrison.

Origins: Palmyrene Archer Cantonment, or Trajanic Occupation?

Most of the early base probably dated to the last quarter of the second century. However, some was likely earlier. Especially if the Palmyrene archers established in the 160s were indeed reformed *in situ* as *cohors XX Palmyrenorum*, then part of the Roman base almost certainly began life as the archers' cantonment, presumably already in the NW corner of the city, in the vicinity of the Mithraeum their commanders built before 170, and the Temple of Bêl which had strong Palmyrene associations thereafter.

Indeed, the genesis of the Roman base could have been earlier still, perhaps to be found in an abortive Trajanic project. If *legio III Cyrenaica* was at Dura long enough to build a triumphal arch outside the city (Fig. 11.2; *PR* 1, 6-7; *PR* 2, 4-5; *PR* 3, 17; *PR* 4, 3-4, 56-68 and plates XIII and XIV; *PR* 6, 480-482; Rostovtzeff 1938, 22; James 2015a, 341), it could also have started establishing a base for expected long-term Roman military occupation, of which initial elements were left standing on withdrawal and reused after 165. A candidate for Trajanic foundation is the F3 bath, known to have a long history, and of construction different from Dura's other baths. It is also possible that the first E3 bath was founded at that time. Another potential Trajanic relic is the *campus* Zeus Temple, with its exceptionally classical-looking pitched roof, and paintings showing mostly clean-shaven Roman soldiers—the fashion of the early empire; by the later second century Roman soldiers were normally bearded. If the structure was a Trajanic foundation, its survival during the period between Roman withdrawal and return is potentially explicable in terms of its sacred nature,

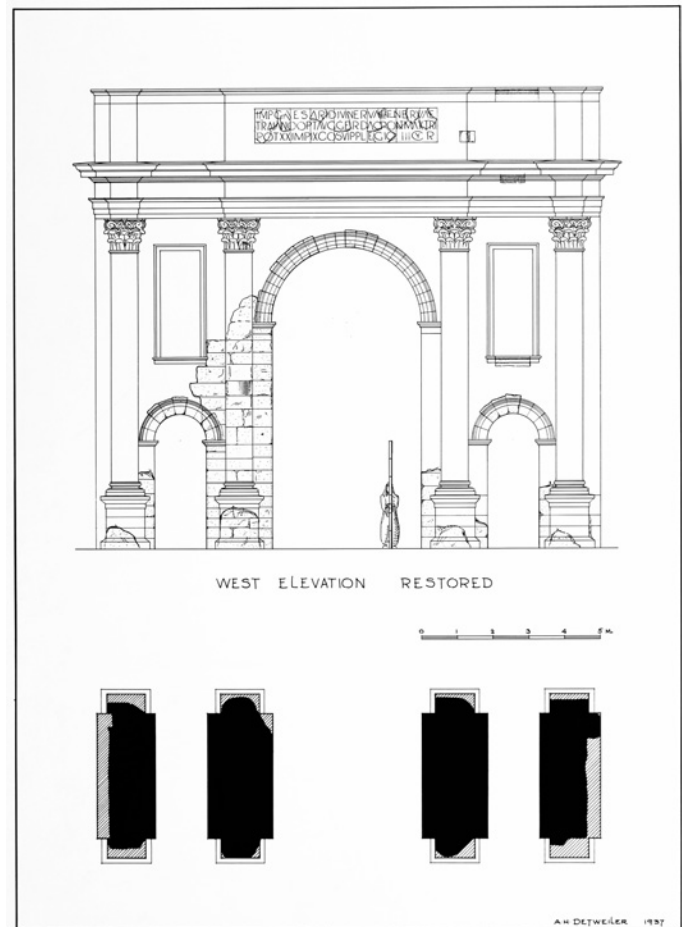


Fig. 11.2. The triumphal arch on the steppe W of the city, by Detweiler.

and Dura's somewhat ambiguous status between the two empires.

The NW Plateau Zone c.165–c.210

What may be said of the development, extent, and layout of the early Roman base between the 160s and 210s? The Mithraeum suggests continuity of a foreign military presence in the NW corner of the plateau from the 160s to the building of the *principia* and then through to the 250s. It is possible to suggest something of Roman military dispositions in this area before the 210s, and of their rationale (Fig. 11.3). Perhaps as early as the Palmyrene archer period c.170, but more confidently by 190 when the garrison comprised regular imperial *auxilia*, the military had probably already taken over the area from the W city wall to G St, and from the N wadi defences to 8th St including the properties on its S frontage. The Temples of Bêl, Azzanathkona, and another to unidentified god(s) in the S half of E7 all lay inside the area.



Fig. 11.3. The hypothesized twin initial Roman military nuclei in the city.

Ab initio 8th St was a major E–W axis of this zone, although initially 10th St was also available. The double-width D St roughly bisected it, with six city blocks each side, and looks to have been framed as the main N–S axis of this early military zone; it was certainly flanked by facilities usually found in the centre of a Roman base. The early administrative compound and probable HQ in the Temple of Azzanathkona opened onto the head of this street; it is possible that a second such compound, direct ancestor of the later *principia*, also existed in part of the second temple now inferred in the S half of block E7. Directly across D St the J1-A ‘House of the Prefect’, a Roman-military-style residence

suited to the dignity of an unit commander of equestrian rank, also looks to have belonged to this early phase.

Another apparently combined administrative centre and officer’s residence was established in the great E4 house near the SE corner of the area, beside the point of entry along 8th St. N of this, the first small bath in E3 was built early in the scheme, possibly founded to serve the Palmyrene archers who, if they had acquired a taste for Mithras from Roman military service, had perhaps developed a preference for Roman bathing too. S of the E4 house the F3 bath was built (if it was not a Trajanic foundation) at the corner of the zone. There would also surely have been *horrea*, perhaps

already in the J5-J6 vicinity where it is thought they lay in the third century. Indeed, perhaps we can see an integrated overall conception of the later second-century NW military zone, with its E side comprising a three-city-block strip of administrative and service facilities separating it from the streets to the E, with the granaries to the W, well away from the all-too-real fire hazard of the baths. The rest of this area became soldiers' accommodation, an unknown proportion of which had probably been created by the Palmyrene archers.

This early Roman military zone involved very limited new construction. Apart from the Mithraeum, J1-A house, the bath-houses, and some new-build soldiers' accommodation, all the known structures were converted civilian buildings. It was apparently unenclosed, although the guardroom and gate across the head of D St indicates internal surveillance and control lines, in this case of movement between the main base area and the HQ compound/Temple of Azzanathkona plaza, a function echoed by the apparently later F St gate/arch regulating access to the widened 10th St; there were likely others. Before the 210s, there was a radical change, with the tearing down of the small E3 bath and its replacement by the larger E3/E4 facility, angled and positioned to straddle and block 10th St. The E street frontage of the new bath building, its service yard, and *palaestra* created a continuous walled boundary facing G St, running from an inferred 12th St entrance close to the N wadi wall to the 8th St axis. This was otherwise unbroken except for a (? service) door to the E3 bath and an entrance into the E4 administrative building. It is unclear what happened along the S perimeter, which apparently comprised the rear party walls of the properties along the S side of 8th St. The 'camp wall' may be later, while it seems that some N-S streets, notably F St, always remained open. However, the overall impression is of an increasingly strongly bounded military zone in the NW corner of the city.

The new angled bath linked E3 and E4 into a 'super-block'. At some stage, the stretches of 10th St between blocks J1 and J2, and between J3 and J4, were also built over and probably closed, creating two more 'superblocks'. This was part of the wider phenomenon of rough and irregular-looking, but also clearly limited and controlled, extension of military housing outside the footprints of city blocks, which halved the widths of some roads, as D St at J2. The I St sequence indicates that such expansions had already been created at X7 before the Palace was built, now ascribed to the 210s.

The Citadel/Campus Zone before 210

If much less extensive and detailed than for the NW plateau, there is also evidence for an early military presence around the Citadel in the N branch of the inner wadi (Fig. 11.3). Altar inscription H1 from the A1 Temple of the Roman

Archers, undated but likely to date to the 210s, attests a pre-existing *campus*, taken to be on the wadi floor which the temple overlooked. The recently discovered *campus* Zeus Temple, in form and decor argued to be second century, probably served the original smaller *campus*.

More generally, along with control of the city gates and the rest of the defensive circuit, it is to be presumed that the Roman military would also have taken over the adjacent Citadel on arrival. Early military occupation of the Citadel likely amounted to more than a few sentries. The extensive military accommodation now identified in and around the Citadel may also date from early in the Roman occupation.

Two Early Military Nuclei: Expansion and Coalescence

It seems, then, that the integrated military district in the N of the city which existed in the final decades of Dura's existence began as two early nuclei, one in the NW, the other around the Citadel (Fig. 11.3). These were doubtless always supplemented by smaller military presences at the city gates and elsewhere.

When did these two nuclei expand and coalesce? A key clue is provided by the evidence for the additional 'hard' base boundary E of G St on the N side of 10th St, established when the Roman Palace was built, probably in the early 210s. The evidence from block X7 indicates that it, along with the adjacent E1 and presumably the area N of this line, had already been taken over for military use before that, with much of it already converted to soldiers' housing, and encapsulating more pre-existing civilian sanctuaries: the X9 temple and 'Dolicheneum'.

It is suggested that everything N of the Wadi Ascent Road—plus perhaps, as along the contiguous 8th St, all properties along its S frontage as well—had been acquired by the military some time before 210, with measures for internal surveillance like the I St sentry post (paralleling E7-38 and J1-A8 in the NW zone). The 'hard' 10th St boundary, like that separating the *campus* from the zone around the N end of the Citadel, probably defined an internal subdivision; soldiers lived on both sides of it. Its creation also made the existing G St boundary into an internal division.

More Urban Baths, and Hydraulic Schemes

As we saw (p. 263-264), Brown noted that the angled E3 bath and the C3 and M7 baths at opposite ends of Main St were very similar in layout and construction, proposed they were all built around the same time, and concluded this was part of the campaign of the 210s (PR 6, 84, 102-3). Because the angled E3 bath was completed before the *principia* and 10th St colonnades were even planned, this wider scheme of bath construction, also involving hydraulic refurbishment of the

existing F3 bath, would not have been part of the 210s building programme as Brown thought, but rather preceded it—thus allowing a significant period of use before F3 burned and was replaced by the amphitheatre of 216. The ceramic pipes used in the water supply systems have been argued to indicate North African influence, which could plausibly fit with an earlier Severan date, e.g. in the 190s.

*The Late Severan/Caracallan
Reorganization and Construction
Programme, c.210–c.213?*

The military building campaign of the early 210s was clearly high-profile at the time, involving erection of multiple grand structures. However, as the foregoing arguments demonstrate, in my view its extent and importance have been greatly exaggerated.

The central act was indeed creation of the *principia*, a traditional Roman HQ building in form, although constructed largely in local materials and techniques. This required drastic reconfiguration of an existing sanctuary, most of which was demolished though its principal naos was conserved and a small new temple created in the SW corner of the old *temenos*. The new shrine building was itself the focus of an imposing architectural arrangement incorporating its own small colonnade, the forehall of the *principia*, and the grand, widened and colonnaded stretch of 10th St. The last also constituted a central circulation space linking the HQ with F St, now the main axis of approach from the S. The works, also involving substantial demolitions and renovations in E5 and E8, marked an imposing formalization of command, administrative, and sacral facilities at the heart of the base zone. However, the widened and colonnaded stretch of street was not extended into a grand *via principalis* across the base as the excavators clearly expected—and which, now that it is thought that the Roman Palace was also part of the same scheme, would superficially make sense. This is now readily explicable: when the *principia* was built, such an axis was neither practicable nor necessary. With the Palace no longer seen as a higher-level command HQ, or indeed specifically military at all, a grand direct street link with the *principia* was not a particular requirement—especially when reopening 10th St between them would have involved destruction of the E3/E4 bath complex, which had been built across 10th St some time before. Neither was there any reason for the military planners to drive the 10th St widening westwards either. They did not, perhaps because the temple reconfiguration took priority and because, on my interpretation, it would have involved disruption of established and occupied military accommodation in blocks J1–J4, which had probably already overbuilt 10th St to create ‘superblocks’. This would have been pointless because it would lead only to

the blank city wall, not even an independent military gate through the defences. Above all, it has not been previously recognized that 8th St already served the practical function of a transverse axis, linking the NW base area together and to the rest of the military zone.

Further, beyond the central showpiece of *principia* and colonnaded 10th St, the much-vaunted building programme of the early 210s may not have amounted to a very great deal after all, at least with regard to the military base per se. If we accept that the Roman Palace was indeed built as part of the same campaign, this now looks to have been an imperial administrative and diplomatic facility embedded in the military zone. Its creation did, however, help establish a new enclosure line along 10th St involving a corresponding extension of the E3 bath to block G St, apparently within an already military area. Another supposedly major element of the 210s campaign—creation of the E3, C3, and M7 baths, upgrading of F3 bath, and most or all of their water supply systems—is now seen to be partly a conflation of multiple phases, probably culminating earlier.

The other important innovations plausibly belonging to the early 210s are the camp wall in the NW, and the *campus* expansion with new military temple in the wadi. The camp wall was apparently built of the same mud brick as the *principia* and Roman Palace, and its construction involved closing the wide D St which probably served as an axis of the early base. This street closure fits with the reconfiguration of circulation attending creation of the *principia*, and so makes sense in the context of the 210s (but not much later; it was overlain by one of the additional flights of wall-stairs ascribed to the 230s). However, the wall was ploughed through the rear ranges of properties which may well have already long been in military hands. It was a localized security enhancement, albeit permanently changing access arrangements to e.g. the Temple of Bêl.

In the wadi, the important but undated inscription in the fairly imposing new Temple of the Archers, close to the small *campus* Zeus Temple, fits most plausibly with construction around 210 as part of the base refurbishment attendant on the change of garrison around that time—although again, a slightly earlier date is possible, while a significantly later one is less plausible given the absence of *cohors II Ulpia* from the third-century textual record. Associated enlargement of the *campus* apparently involved significant demolition of buildings, but were these structures, too, already in military hands? Did these textually recorded developments involve any further expansion of the base area around the Citadel, or just its reconfiguration?

With regard to the amphitheatre, one of the most iconic Roman structures in the city, this was apparently not a planned part of the early 210s programme at all. Rather, it was an opportunistic afterthought, a change of function for

the facilities in F3, decided upon when the bath-house unexpectedly burned down slightly later.

Otherwise, the early 210s saw a religious dedication at the 'Dolicheneum', and plausibly marked the moment for the change of function of the E4 house from administration and officer's residence to food production. Rather than massive new appropriation and conversion of civil housing to military accommodation, the early 210s probably saw general continuity of established occupation, with reconfiguration of some, like E8, to suit different troops.

Subsequent Additions and Changes to the Military Quarter, c.215–c.250

If the amphitheatre, dedicated in 216, was indeed an afterthought to the programme of the early 210s, it was the first of a very limited number of identifiable changes between then and destruction of the city. The F St arch, butting the S colonnade piers, was evidently an addition to the 10th St scheme, but there is no indication of how much later it was. There was also a late renovation of the Mithraeum, of uncertain date, and at least minor repairs in the various bath buildings. New stairs, one built over the camp wall, were added to

access the city defences, ascribed to c.230 when the new Sasanian threat began to make itself felt. Otherwise, while papyri, inscriptions and wall paintings like the Terentius sacrifice attest garrison life during the last few decades of the city, the military base did not detectably change significantly before the last desperate years of upheaval culminating in the final siege.

Overview: Upgrading, Not Creation of the Base in the 210s

The building programme of the 210s, so prominent in terms of its epigraphic evidence and intrusive, pretentious architecture, did not mark a massive imposition suddenly transforming the urban landscape as the excavators argued, and many since have accepted. Rather, it marked an important, but actually limited, enhancement, reorganization, and especially formalization of an extensive pre-existing military base; it did not necessarily see the existing base enlarged at all. This had developed and expanded, episodically, over the preceding fifty years, likely already achieving more or less its third-century size and complexity, complete with multiple baths and administrative facilities, during the later second century.

Why Was the Base Where It Was, and As It Was?

In the foregoing, it was argued that the unitary base area seen in the third century, encompassing the entire N part of the city from the W defences almost to the River Gate, resulted from expansion and coalescence of two later-second-century nuclei, one near the Temple of Bêl, the other focused on the Citadel. Subsequently, presumably increasing Roman troop numbers at Dura led to takeover of the far N part of the intramural area, linking up the military holdings. But why did it start as two nuclei?

WHY TWO INITIAL NUCLEI?

When Roman power became permanently established over Dura c.165, and a decision was made to station Palmyrene *symmachiarii* there, while the *Realpolitik* may have been that these were proxy forces holding the city for Rome, the option of sending in troops from a long-standing friend of Dura may have been chosen as a face-saving measure for the Durene elite. The Palmyrenes were likely presented as defending the newly 'liberated' city from Arsacid interference. Under such circumstances, a less obtrusive, peripheral location would have been appropriate. The zone around the Temple of Bêl appears at the time to have comprised only partially built-up city blocks offering open ground, with more free space along the city wall to accommodate the Palmyrene force with minimal disruption to civic life. The temple plaza also offered a ready-made military assembly space. It is further possible that the Palmyrenes attested in Arsacid Dura—visiting traders and soldiers, and resident expatriates—already tended to congregate in or use this zone, around the temple which, at least later, would become especially associated with Palmyrene Bêl. With subsequent arrival of regular Roman troops, and the proposed enrolling of the Palmyrene archers as the nucleus of the nascent *cohors XX*, the NW cantonment was then probably expanded as it was developed into a Roman auxiliary base.

With regard to the inner wadi/Citadel zone, it was suggested above that the incoming Romans would have taken over the great inner stronghold by default, as part of the

defensive circuit. They also used the flat wadi floor in its shadow as a *campus*. This was established on what looks always to have been open ground, perhaps for military assembly and training since Hellenistic times. Here, the early garrison also built a small military temple—if it had not already been established during the Trajanic episode.

They had other strong reasons for establishing a substantial presence around the Citadel in the later second century. These also visually and symbolically dominated the heart of the city. Originally containing successive Palaces presencing Hellenistic and then Arsacid royal power (pp. 50–51), it was appropriate for the Citadel now to be held by the Roman military. There were also practical motivations. If semi-ruinous, it would still be wise to hold its massive walls against any possible insurrection. The personnel, dependants, and livestock of a formation like Dura's first attested regular Roman garrison unit, *cohors II Ulpia*, also required several hectares of administration, service, and living space, over and above the space already occupied by the unit of Palmyrene archers, which likely itself increased if it did indeed evolve *in situ* into *cohors XX Palmyrenorum*. The Citadel zone potentially offered the required space. It was also close to the River Gate, for greater convenience of water supply, and access to the river route and its fertile plain for pasturage and supplies of food, fodder, etc. The old Citadel itself was vacant, offering space which, if mostly sloping and awkward, was nevertheless subsequently built up. Around the *campus* in its shadow, the irregular blocks of housing on the floor of the N branch of the wadi—and perhaps those on its sloping W side too—offered ready-made accommodation.

It is tempting to suggest a simple model, of an initial NW cantonment for the Palmyrene archers developing into the quarters of *cohors XX*, while *II Ulpia* occupied the Citadel/wadi zone. However, while accommodation for soldiers of the two units may indeed have been concentrated in these separate zones, textual attestation of *II Ulpia* in the 190s in the Temple of Azzanathkona military compound suggests that administrative functions for both resident formations may already have been concentrated in the NW area, foreshadowing siting of the later *principia*.

Later military take-over of the area between the nuclei, linking them into the contiguous military quarter seen in the third century, would then have been a consequence of increasing space requirements due to subsequent garrison expansion, perhaps specifically the inferred doubling of *cohors XX Palmyrenorum* to milliary scale.

WHY NO 'STANDARD ROMAN CASTRAMETATION'?

On the foregoing model of phasing and chronology, far from being a sudden, single creation c.210, the military quarter was established incrementally, through several episodes of spatial expropriation spanning the preceding half century, with the 210s perhaps seeing another—or possibly none at all. These represented largely ad hoc responses to a series of decisions regarding the Roman military presence in an established urban landscape taken under several emperors—decisions themselves reflecting changes in both strategic situation and imperial policy on the eastern frontier, not a single coherent plan. The peculiarities of the sprawling base as seen in its final, third-century form are therefore comprehensible as the cumulative outcome of these multiple stages.

The longer-than-realized history of the base, and its incremental growth from two distinct centres, help explain why, despite much of it being constructed within an orthogonal urban grid superficially offering easy adaptation to a 'proper' Roman military station and boasting a regular *principia* building, the layout of the mature base at Dura did not follow the familiar principles of Roman castrametation expected by the Yale expedition (pp. 29–30).

There is clear evidence that, through the period of the Dura base, imperial Roman campaign camps and new permanent bases on 'green-field' sites were still normally structured around the chosen position of the front entrance of the HQ, from which was laid out the axial *via praetoria* leading to the main, front gate through the perimeter. Across the frontage of the HQ ran the transverse *via principalis*, leading to lateral gates. Bases could still be laid out this way in Severan Syria, as illustrated by the square fort at Qreiye, upstream of Dura (Fig. 12.1; Gschwind 2005; Gschwind and Hasan 2008; Gschwind 2009; Seren et al. 2009). Of course at Dura the city walls provided the defensive perimeter for both civil town and the base which therefore also lacked the normal pattern of gates. However, it still needed practical internal communications, points of articulation with the city grid, and routes to and from the main urban gates.

Indeed, there are indications that the early NW base area already existing when the new HQ was built had employed the especially wide D St as a N–S axis, around which its command and administrative structures articulated. D St was probably then still the principal ceremonial route to

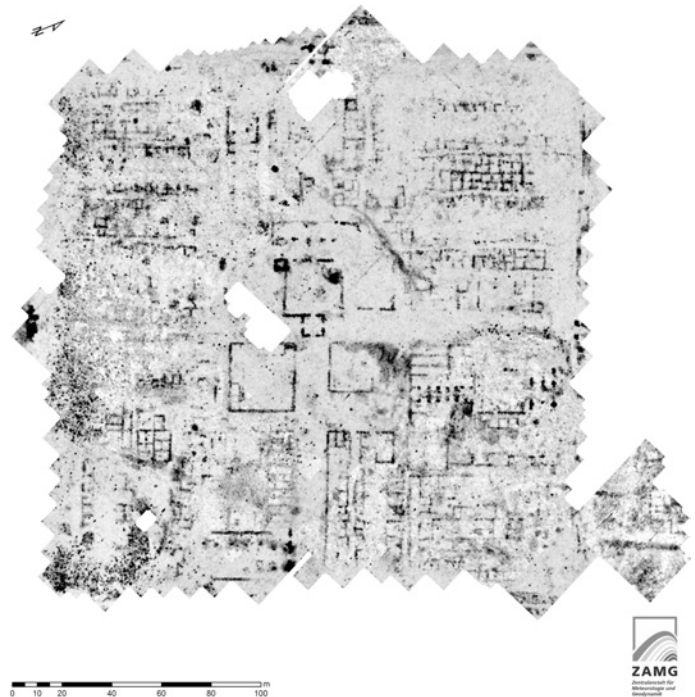


Fig. 12.1. Ground penetrating radar image of the interior of the square Roman fort of Severan date, apparently with an annexe to the N, at Qreiye ('Ayyash) on the Euphrates. Image rotated to facilitate comparison with the Dura base plans.

and from the Temple of Bêl, and at this stage the garrison anyway generally avoided obstructing road lines, at least until, sometime before the *principia* was built, the second, angled E3 bath blocked 10th St—thereby removing the option of its serving as an E–W *via principalis* for the plateau base zone. A bigger bath/leisure facility, which had to straddle two blocks, was judged more important than keeping 10th St as a transverse axis; 8th St served this function (below).

In practice, the planners who created the *principia* faced multiple constraints. The most pressing were not the topography, layout, and existing building stock of the city, but the fact that they were not creating a new base layout, rather modifying an existing, well-established, and densely occupied one, in which much of the existing garrison was already settled, and destined to stay; the base was not seeing the kind of complete change of garrison which often provided an opportunity for radical replanning and rebuilding in Roman bases.

The explanation for the subsequent positioning of the *principia*, then, was multifactorial. Its general location ensured continuity of function: it was placed in the area where command and administrative facilities were already concentrated. However, the planners decided against the massive disruption which would have arisen from siting it to co-opt the broad D St as a formalized *via praetoria*. While

subsequent walling-off of D St to the S shows that continued temple access was no longer a priority (and probably diverted to B St), closing an important internal base axis was evidently problematic. A headquarters building straddling D St would also require demolition of much of the already densely occupied block J1, and the inner shrine room of the civic temple in the S part of E7. The planners opted to avoid all these consequences, choosing instead to squeeze the building into E7 in a manner which carefully conserved the heart of the old sanctuary, which they maintained in heavily reconfigured form. Probably the main consequent change to circulation in the base was that the main approach to the central command and administrative zone, previously along the wide D St from the W side of the agora, was henceforth from F St, running up from the centre of the agora district to the newly widened and colonnaded stretch of 10th St (part-compensating for a grand HQ-fronting *via principalis* which never was).

How the base worked in practice is discussed below.

IRREGULARITY OF THE BASE: 'ORIENTAL LAXITY' OR SOUND MILITARY TRADITION?

Rome's military was and is widely seen as the epitome of order, reflected in the almost obsessively orthogonal layout of many (though not all) earlier imperial forts in Europe. Consequently the irregular appearance of Dura's military zone puzzled the excavators, both at the macro level of base layout, and the finer scale of component buildings. Many of the structures in the base appear cruder than the buildings of the civil population. This extended even to shoddy building practices in prestigious, ostensibly regular-looking buildings like the A1 Temple of the Roman Archers, but is especially noticeable in military housing. Converted civil dwellings were modified by insertion of relatively flimsy partitions, with new doorways broken through and redundant ones roughly blocked up. Where the soldiers built their accommodation from the ground up, the resultant layouts were especially irregular, and in some areas sprawled onto existing roadways. Why did the Roman base look so 'messy'?

Downey commented on the lack of regular Roman military buildings, and also noted continuity of temples inside the base as differing from the supposed military norm (Downey 1988, 164–5). She contrasted the Dura base with the axial symmetry of layout and regular, custom-built barracks of the later Tetrarchic base at Palmyra. Why the difference? 'The irregular and in some case rather slipshod construction, particularly of the barracks, at Dura suggests a hasty response to an emergency. Economic factors may also make a difference; Diocletian apparently wanted to make a show' (Downey 1988, 172). Diocletian was also imposing his will on a recently rebellious, devastated, and disgraced city, a

situation which, it will be argued, contrasted strongly with that at Dura.

In the past, Dura's apparently shoddy irregularity could have been put down to 'oriental laxity', reflecting eastern armies too badly trained, slack, or 'not really Roman' to do things 'properly' like western armies did on the Upper German *limes* or Hadrian's Wall. This would echo Roman literary *topoi* about the Orient and its supposed corrupting effect on Roman troops leading to softness and laxity, which tend to focus especially on the enervating urban stationing of many eastern formations, e.g. Tacitus *Annals* 13.35.1–2 on legionaries at Antioch in the 50s. Their supposed softness was contrasted with the manly vigour of soldiers from the northern frontiers, represented as living in camps which protected their traditional Roman *virtus* from the enervating effects of city life. Such jaundiced metropolitan Roman views themselves chimed with the Orientalist prejudices of earlier scholars of the Roman military. However, Wheeler has shown that the historical record refutes such views of the military effectiveness and courage of Rome's eastern armies, which were arguably as well-trained and effective in war as their European peers (Wheeler, E. L. 1996). Nevertheless, these *topoi* found their origin in real differences in regional military cultures between Europe and the East, where many troops were indeed city-based. So, if not 'oriental laxity', why did Dura look so different from orthogonal 'green-field' bases? For indeed, examples like Qreiye shows that the provincial army of Syria could and did build regularly laid-out bases including some traditional barrack blocks as late as Severan times (Fig. 12.1). Paradoxically, the Dura base may simply express a different strand of Roman military tradition as sound as, and possibly older than, the geometric rigour of the marching camp.

Apparently referred to in one text of *cohors XX Palmyrenorum* as *castra*, in another certainly as *hiberna*, the Dura establishment was thus referred to both as a defended base depot and winter quarters. Practices for establishing winter quarters could be very different from those governing temporary camps of forces on the march, famously described by Polybius for the republic, and Pseudo-Hyginus for the early empire (p. 30). In the republican period, Roman armies wintering away from home often established their *hiberna* in friendly cities which provided readymade shelter, communications, and sources of supply. As they conquered and permanently occupied 'barbarian' Europe, absence of Mediterranean-style towns obliged armies to create their own winter quarters. These essentially represented the consolidated layouts of tented marching camps, initially in timber capable of lasting one or several winters, by the second century hardening further into permanent bases of stone, tile and concrete: the familiar 'playing-card' auxiliary and legionary bases of Europe. In the East, while as we have seen similarly highly regular orthogonal layouts were also established for 'green-field' sites, Dura represents an entirely

different class of imperial military base: one embedded within a friendly city.

In early imperial times the East was Rome's only major theatre of military operations which was, like its central Mediterranean home region, already heavily urbanized. Here, existing cities permitted continuity of the republican practice of armies wintering within their walls. As standing provincial armies were established in regions like Syria, it made sense in strategic, communications, logistical, and political terms to station many military formations at existing cities more permanently, to use, protect, and watch them and their networks (perhaps most notoriously, to secure the vital but violence-prone port/metropolis of Alexandria in Egypt).

A key reason for the present study is that we do not know anywhere near as much about such bases as we do about 'playing-card' establishments. For urban bases mentioned in texts, often we have no idea even of where they actually stood. Some garrison stations were suburban, on sites adjacent to the city where military planners could build as they liked, as at, e.g., Bostra in Arabia (Pollard 2000, 41–2). Others, like Dura, were established inside the walls.

Crucially, these eastern urban bases had a genealogy, and associated rules and practices for their creation and operation, entirely different from the primarily European tradition of orthogonal, marching-camp-derived *castra*. Instead, they found their origin in republican urban over-wintering practices, which generally just used existing buildings as temporary accommodation for daily living and military administration. For longer-term imperial garrisons, in conquered cities the military could do as it pleased with the property, as with the bodies, of the defeated. But in allied cities, or those which had surrendered and were destined to become part of the empire, it was necessary for a Roman garrison to take into account continued urban functioning, and to pay some consideration to the interests of the civil population. While military necessity and Roman prestige doubtless supervened, flexibility to adapt to local circumstances and a degree of diplomacy would have been essential to the art of urban military basing. As we shall see, there is clear evidence of such diplomacy at Dura.

As in the East literal (single-)winter quartering arrangements in cities increasingly turned into long-term garrison establishments, then as with the 'playing-card' sites of Europe, hitherto ad hoc arrangements evolved into long-term practices. For one winter, there will have been neither time nor motivation for significant alterations to buildings temporarily occupied (and often many soldiers were billeted on civilian households). For longer-term intramural garrisoning where, as at Dura, Roman formations fully took over parts of a city, military planners needed to decide if there was sufficiently pressing need to justify the expense, resource consumption, and severe disruption involved in mass demolition and rebuilding to create a custom-designed military base literally from the ground up. At

Dura at least, over the incremental developmental history of the base, the decision was normally to make use of what already existed.

All Rome's armies, while in practice continually innovating and evolving, placed immense ideological value on military tradition, received ways of doing things, in war and peace. In the context of stationing in a city, simply reusing and adapting the pre-existing urban fabric *was* proper Roman military practice, as deeply rooted in hallowed republican precedent as creating marching camps on campaign.

Indeed, even the most alien-looking irregularities of the Dura base, like the ramshackle lean-to structures along the city wall in J7, apparently alien to both mainstream imperial military practice and Durene architecture, are still fully explicable in terms of sound Roman military tradition. It is suggested that these buildings were initially created by the Palmyrene archer unit as supplementary housing on allotted open ground, and represent Palmyrene military or lower-status domestic practice. With the mooted *in situ* conversion of this formation into a regular imperial auxiliary cohort, the buildings became part of the estate of the new Roman garrison. As this was the received style of domestic construction amongst its men, *cohors XX* probably continued to practice it where needed thereafter. The similar constructions inside and around the Citadel might even represent *cohors II Ulpia* adopting the local methods of the Palmyrenes. This would all be perfectly respectable Roman military tradition. 'Ethnic' soldiers like Palmyrenes brought into Roman service their own ways, both martial and domestic, from types of weapons, tactics, and terminology to cooking methods. Some of these long survived as specific regimental culture. Through imitation, selected traits might spread into wider regional usage, and even become part of universal imperial military culture and practice. They were redefined and entirely accepted as now 'Roman', even where, as with 'Spanish' swords and Gaulish equestrian culture, their origins were long remembered (*FR* 7, 242–54; for a slightly different view see Haynes 2013, 240–50).

Yet it is easy to exaggerate the differences between Dura and 'proper Roman forts'. If they appear especially makeshift and their ruinous state reveals their apparently hasty or poor construction, features such as the A1 Temple of the Roman Archers and the amphitheatre evidently looked impressive, at least when new. Conversely, across the empire, even regularly laid-out military installations were highly variable in build quality. And while the layouts of much of Dura's converted or newly constructed military accommodation were short on right-angles and some spilled onto roadways, there is clear evidence of overall planning and control. Notably, impinging on the street grid was kept within strict bounds. Certain stretches of road were entirely overbuilt, and elsewhere housing extensions were allowed to sprawl across existing road lines, yet only on one side of the street, and only to its mid-line, maintaining a passage wide enough

for vehicles (e.g. J2 encroaching onto D St, E2 onto G St, X7 onto I St). Apparent irregularity does not entirely mask careful regulation and planning.

Indeed street encroachments at Dura were not wholly military innovations, as there were Durene civilian precedents. E St had been co-opted as effectively part of the E7 temples, while 3rd St was halved in width by encroachment of the Temples of Artemis (H4) and Atargatis (H2), with

further examples in the agora (*PR* 9.3, 70 n. 3; *PR* 9.1, fig. 78), and the line of 7th St interrupted by ‘superblocks’ D3/D4 and D1/D2. This is a reminder that, just as much of the actual fabric of the base infrastructure had originally been built by the townsfolk, so their urban traditions, too, continued to influence the way the base developed, also seen in use and adaptation of local materials and building styles even for the *principia* and Roman Palace.

How Did the Base Work?

We now consider how the military base area operated, as a zone where a large number of people lived and worked on a routine basis. On one hand, to function it required the affordances of its internal communications, connections with the civil town, and access to roads, river, and lands beyond the walls; on the other, there was a need for surveillance and control of activities within the base, and of movements across its boundary.

FACILITATING AND ORGANIZING LIFE: LAYOUT

The Boundary with the Civil Town

The most obvious part of the base boundary (Plate XXII) is the substantial mud brick wall ploughed across four blocks from the city defences just S of Tower 21, and blocking Wall, A, C, and D Sts, with a gate established at B St (Fig. 5.1). How the S boundary was defined E of D St has always remained an issue. If it was necessary to build a wall at the W end, why was this not simply continued all the way to, e.g., the S end of the Citadel? Across blocks F7 and F5 it seems that the boundary of the military zone simply comprised party walls between military and civilian-occupied structures. The same was true within block B2, by the Citadel, although the boundary probably comprised building frontages along Lower Main St. On the plateau, as the camp wall may have been a subsequent local enhancement, except where the amphitheatre formed part of it, the boundary may generally have comprised the rear walls of military-held houses lining the S side of 8th St—probably all properties from the city wall to H St. The course of the boundary along the W side of the inner wadi is unknown, but the base is suggested, as along 8th St, to have incorporated at least all properties lining the S side of the Wadi Ascent Road, if not encompassing all blocks on the wadi slope—in which case the boundary here may rather have comprised property frontages on K St.

Subdivisions

The base area was split by site topography into two major zones, the flat plateau, and the N branch of the inner wadi

around the Citadel. Each was further subdivided (Pl. XXIII). The plateau zone comprised at least three parts. A NW enclosure was defined by the walled W frontage of G St. NE of this, a second enclosure was created in the far N of the city on the N side of 10th St, by blocking G and I Sts, and by the outer wall of the Roman Palace. It was accessed along H St. The zone E of the first and S of the second enclosure, encompassing the H St/8th St/Wadi Ascent Road junction, was also in military hands.

Occupation of the Citadel spilled out of its S entrances and around its S end. The wadi-floor *campus* in the shadow of its long wall was separated from the zone around the Citadel's N end by the rear walls of the Temple of the Archers and adjacent house backing onto the lane connecting this valley-head enclosure with the Wadi Ascent Road.

Articulation of Base, City, and Surroundings

With regard to entrances, to W, N, and E the base was surrounded by the city defences, but had no major gate of its own through them; there was never a gate through the mud-brick stretch of the city walls where the Ottoman road was later broken through. Two small postern gates existed, one into the N wadi by the Tower of the Archers, the other below the N end of the Citadel, leading to a cliff path down to the river plain; the latter was subsequently blocked and a wall-walk access staircase built across it. But for all important traffic, the base communicated with the outside world via the civic street network and the two major city gates at opposite ends of Main St. Within the base area, Dura's pre-existing street network was preserved, but modified and adapted to military use.

While multiple military-instigated interruptions demonstrated that 10th St was never the *via principalis* the excavators expected, at an early stage in the present project it became clear that, in sharp contrast, the next E–W road to its S, 8th St, had provided a transverse axis articulating the NW base zone. It was subsequently realized that this was only part of the story of how the base was articulated, and how it related to the rest of the city.

The choice of 8th St as a key axis is explicable in terms of site topography and the existing urban street network

(Plate XXII; James 2007b). 8th St ran from the W defences to one of the most important crossroads in the city. The broad H St was the principal N–S urban axis. It linked the far N region of the plateau—where it came to form the internal axis of that part of the military zone—with the agora, then intersecting with the equally important E–W Main St which led to the Palmyrene Gate providing access to the steppe, and the roads to Palmyra and N Syria. H St then ran on S to the centre of civic administration around the *Strategeion*.

The fourth branch of the H/8th St junction was equally important. This point lay at the head of the N branch of the inner wadi. From the junction a curving road led down into the valley, where it ran along the SW side. Its course thereafter is partially obscure, but ultimately, S of the Citadel area, the Wadi Ascent Road linked with Lower Main St (connecting with other steep-sloping and stepped routes to the plateau via the S branch of the wadi), and so led to the River Gate, the Euphrates and its plain, and the road to Babylonia (Pl. XXII).

The Wadi Ascent Road also connected the plateau base area with the military zone around the Citadel. Realization that the latter was considerably more substantial than previously thought—with military occupation extending right down to Lower Main St—casts a different light on the Wadi Ascent Road. If, as is hypothesized, all the street-frontage properties along its S/W side were also in military hands (and perhaps the entire W slope of the N wadi branch), then the Ascent Road did not run past that part of the base zone, leading towards the area on the plateau; rather, it was wholly within the military quarter. In other words, the Wadi Ascent Road and 8th St together formed a single, continuous internal road line uniting and articulating the entire sprawling military quarter from Lower Main St to the western city defences (Plate XXII). Running behind a long snaking boundary with the civil town, it combined many of the functions of the *via principalis* and *via sagularis* (road behind the rampart line) of orthogonal Roman bases. For traffic approaching the *principia* from the River Gate, then, with a stretch of F St it also perhaps served the function of a *via praetoria*.

Internally, this long road connected the other main internal streets of the base: B St and especially F St in the NW area, H St for the two N plateau subdivisions, the lane leading to the N Citadel entrance, and access to the campus and S Citadel area in the wadi. Much of the rest of the old street grid remained in use, albeit with narrowings and some closures. Stairs behind the city wall SE of the Roman Palace also linked the plateau with the N end of the wadi zone.

There were multiple points of access between civil and military zones. On the plateau these were principally: along F St which ran directly from the vicinity of the Temple of Artemis and the *bouleuterion*, across Main St, through the middle of the agora to the aggrandized stretch of 10th St forming the heart of the base; and along H St from the SE

‘acropolis’ of the *Strategeion*, the Temple of Zeus Megistos, and the residence of the Lysiad dynasts to the principal, arch-embellished cross-roads of the civil town at Main Street, and on to the N military enclosure and the Roman Palace. There was a secondary entrance on B St probably primarily servicing the granaries. Access was probably also possible on E St, although this axis was truncated not only by the *principia* at 10th St, but also by the layout of the agora at 6th St. For the wadi zone and Citadel, the main entrance was on Lower Main St, apparently beside block B2, although there were probably other secondary access routes on the W side of the wadi. Only at B St has evidence of a physical gate yet been found, a feature of the camp wall, which brings us to issues of security.

SURVEILLANCE AND CONTROL

How was the base boundary policed, when much of it was apparently a makeshift line running through housing blocks, comprising party walls between properties? Why was only c.20 per cent of its length ‘hardened’ with a substantial wall? At Dura, part of the base community lived literally next door to civilians. And within the base, how were movements and activities regulated? It is clear that in the Roman military there was a standing concern, even anxiety, to monitor and control potentially troublesome troops and their dependants. Practical routes to permit intensive movements of people, animals, and materiel in and around the base had to be combined with adequate surveillance and control to ensure security and peaceful operation of the base. Archaeological evidence provides important clues to how this was achieved, which may be combined with elements of the textual record, and our general knowledge of how the Roman military managed such matters.

With regard to policing, Dura was obviously very different from Roman forts, but occupied by the same kinds of people. ‘Playing-card’ forts were ostensibly designed to withstand surprise attack, and to facilitate organized sallies. Their compact and highly regular layout minimized the length of the defensive circuit and facilitated daily life and routine operations. However, their design was equally effective for internal surveillance and control of notoriously unruly and potentially dangerous gatherings of armed men. They were less castles than ‘wolf-cages’ (James 2011a, pp. 173–174). Their internal layouts of straight main roads offered good lines of sight for surveillance from the headquarters, while sentries on towers and gates were likely often as concerned with monitoring what went on inside the fort and preventing men going AWOL as watching for intruders or attackers. Centurions and decurions were also usually quartered at the ends of barrack blocks nearest the defences in a ring round the troops, ostensibly ready to lead them to the walls or gates during attack, but also best positioning them to watch and control their men.

At Dura, it is hard to discern much resembling this picture. Apart from 8th and H Sts, there seems to have been limited concern to preserve even existing long sightlines, shown by reduction of D St and complete obstruction of 10th St. The implication is of more active surveillance, and not just through the sentries attested at the HQ and inferred on the city walls. We know from the papyri of *cohors XX Palmyrenorum* that sentries were posted at strategic points within the base and also apparently beyond it (e.g. *P. Dura* 107). In Roman bases the watch at the standards was not just ceremonial and religious; practice elsewhere implies strongboxes containing regimental funds and soldiers' savings were kept with the military standards. Of equal importance to the life of the garrison were the *horrea*, granaries/stores, unsurprisingly at Dura also provided with guards. More sentries were posted at the *groma*, which in a campaign camp was the point outside the main entrance to the HQ (Pseudo-Hyginus, *De munitionibus castrorum* 12). Consequently, Dura's *groma* has reasonably been identified as the *principia* forehall (e.g. Lenoir 2011, 36), although Downey also suggested the F/10th St intersection (Downey 1988, 165). However, Pseudo-Hyginus emphasizes that the importance of the *groma* lay in the fact that it also comprised the key cross-roads of the camp, the junction of *via praetoria* and *via principalis*, which was not the case with the forehall. An alternative candidate for Dura's *groma* is the critical H/8th St/Wadi Ascent Road junction (James 2007b). Other guards were sent to the *porta praetoriana* and *porta aquaria*, surely the Palmyrene and River Gates. The picture given by the texts is obviously incomplete: we have no idea what security duties were assigned to the legionary troops. However, it is striking that the list of formal guard-posts does not include any which are identifiable as positioned at the multiple entry points along the intramural base boundary.

Nevertheless, within the base, loss of sightlines was partly compensated for by what look like further local guard posts, e.g. the isolated street-facing room forming the NE corner of the J1-A 'House of the Prefect', which commands what seems to have been a gate across D St where it debouched onto '12th St'. A similar guard room may exist at the NW corner of E4 by the F St gated arch, monitoring traffic from F St to and from the *principia* zone. Indeed, the D St and F St internal gates look functionally analogous, regulating traffic to and from important administrative and circulation/assembly areas to their N. There were also apparent 'sentry boxes' by the junctions of 10th St with D and I Sts (the latter demolished when the Roman Palace blocked the road line). The base area was, then, seemingly dotted with local watch-posts overlooking important intersections.

However, much monitoring and control, especially in day-time, will have been achieved through less formal means, mostly through soldiers' 'situational awareness', going about their daily lives, being conscious of outsiders, each other, and themselves. Fundamental to order and control within military

encampments is self-regulation, through training and indoctrination, discipline and morale. Commanders have always had to rely primarily on such intangible bonds, without which the physical boundaries of a fort, or a lightly enclosed base like Dura, will be quite inadequate to control soldiers. These factors lead soldiers to monitor their own behaviour, through aspiring to uphold their personal and collective reputation in parallel with fear of the consequences of transgression (which in Roman service could be brutal). They also encourage de facto mutual surveillance against misbehaviour, disturbances, straggling, or desertion. During day-time in bases like Dura, these considerations were supplemented by officers and office-holders whose duties involved a great deal of additional active surveillance, in supervising subordinates undertaking routine duties and tasks, and just generally keeping their eyes open. Roman officers fully appreciated that a key way to control soldiers was to keep them busy (Tac. *Ann.* 1.35; 11.20; Frontinus, *Stratagems* 4.1.15). The dangers of loss of control are evident in the recovered letter fulminating about men of *cohors XX Palmyrenorum* going absent without leave *en masse* (*P. Dura* 55A, AD 218–22). That was an extreme case in disturbed times, but lower-level security concerns were perennial. Within the base area, there will normally have been a large proportion of inherently volatile young males, specifically trained to kill—the mass of junior soldiers (older age-sets being progressively thinned by premature death or early discharge)—plus crowds of male servants, many also probably teenagers. Younger soldiers were less likely to have acquired rank, responsibility, or the full trust of their superiors, and perhaps were housed together in circumstances more reminiscent of the traditional idea of barracks, than the 'married quarters' here envisaged for many senior soldiers. When off duty, especially at night, the risks of fights breaking out, or men wanting illicitly to move around or exit the base area, demanded surveillance.

There was probably a curfew at dusk, coincident with closing of the city gates, with soldiers and dependants normally expected to be in their accommodation. In hours of darkness, when routine activities had stopped for the day, a major concern of the military authorities will have been to prevent, or at least to detect, illicit movement within, and in and out of, the military zone: to stop thieving (petty robberies from military housing, more serious losses from e.g. the *horrea*), and to prevent soldiers seeking to break curfew. Additionally to fixed sentries, it is likely that the night-time streets of the base were actively patrolled, not least as a fire watch; with so many households crammed together, and so many ovens, lamps, and other sources of flame, conflagrations will have been a constant hazard ('curfew' meaning 'cover fires'). The burning of the F3 bath underlines the danger.

In the light of all this, how did the base boundary work, if much of it comprised mere party walls or street frontages? It looks at most the equivalent of the chain-link and razor wire

fences around modern military bases, designed for policing, preventing straggling, desertion, criminal infiltration, and theft rather than defence against attack. Such modern base perimeters are often under video surveillance. At Dura, those living in properties adjoining the base boundary were likely selected for their trustworthiness, i.e. comprising centurions, decurions, and *immunes* who, with their *familiae*, were responsible for keeping an eye on movements. The shared house walls apparently forming much of the actual perimeter were perhaps simply extended upwards above roof level with an additional 2–3m of mud brick to hinder illicit traffic across the rooftops.

But then, why build the isolated stretch of ‘camp wall’? It does not look like an incomplete scheme, since it was a symmetrical conception articulated around the B St gate, just as the 10th St boundary was symmetrical around H St, with the blockings of G and I Sts. Although *in extremis* during the siege the line of the camp wall was improvised for defence (pp. 54–55), it was certainly not designed to form an inner enceinte. It was too slight, and no attempt was made to demolish buildings outside it to create open ground to its front. On the contrary, where examined in detail in K5, neighbouring buildings were apparently left intact, leaving no more than a metre or two of clear space beyond. Squeezed in between close-packed buildings, it was not designed to create an impressive external base facade either.

It is suggested that circumstances peculiar to the W end of the boundary line favoured it and made it feasible. Except on moonless nights or during downpours or dust-storms, sentries on or around Tower 21 on the city defences could watch the length of 8th St, and also spot anyone climbing over the camp wall. Indeed, this consideration explains the wall’s extent; the vantage-point of the city defences made this simple barrier slotted into the built environment a practical security measure, but it could not have been observed clearly much beyond D St. This may anyway have been enough for the intended purpose, if it was to create a region of heightened security deep in the base, with substantial walls on three sides, and the *principia* zone on the fourth—perhaps especially to ensure security of the granaries suggested to have lain in this quarter.

With regard to movement across the boundary, the only actual gate identified was through the camp wall at B St, a logical adjunct of the ‘harder’ perimeter in this zone. This was presumably operated and watched by the occupants of house K5-A. There may have been more physical gates, but the same active-surveillance regime postulated for the base as a whole may have made twenty-four-hour armed guards at other entrances to the base normally unnecessary; they were monitored by men stationed in the adjacent housing as part of their standing duties.

The archaeological evidence for the base also gives an impression of progressively increasing concern for internal security over the life of the base, seen in physical measures such as creation of ‘hard’ internal boundaries first along

G St (although that may have been an external perimeter at the time), and then on the N side of 10th St. It is also seen in reduction of access to the J1-A house, and especially in tightening control of lines of movement within the Roman Palace. This seems to imply a growing sense of need to restrict access to high-ranking officers and officials. It would seem to fit with historical evidence that, during the third century, in times of crisis they were increasingly likely to face danger from their own men.

CAN WE LOCATE CONTINGENTS TO SPECIFIC ZONES?

The textual evidence for Dura’s garrison indicates that, for virtually the entire Roman period, the city was home to more than one distinct military formation. For decades it comprised two auxiliary regiments, one being subsequently replaced by substantial legionary detachments, with temporary residence of other whole or part units. Can we locate any of these attested formations within the archaeologically defined military areas? There are certainly grounds for expecting that the personnel of the different formations would have been accommodated in distinct areas. Inter-unit rivalry within the Roman military—between legions, between legionaries and auxiliaries—was fierce, and could result in lethal violence, and occasionally in mass casualties (Tac. *Hist.* 2.68; Lendon 1997, 250). This danger could help explain the apparent initial pair of military nuclei (above), and subsequently the spatial subdivisions of the expanded and unified base area. However, our epigraphic evidence mostly comes from places where men from different units came to work or worship in daytime, when they might mix but were easier to control.

Where attested, the legionaries were, as would be expected, under a centurion *praepositus*, while *cohors XX Palmyrenorum* was under its own tribune. The records of *cohors XX* also reflect deep organizational segregation: from the papyri it would be impossible to deduce the parallel presence of legionaries. Even when commanded by a legionary *praepositus* perhaps also responsible for the legionary contingents, *cohors XX* was run with no visible reference to any other formation, from assigning its own guard details to maintaining its direct lines of command and communication back to the provincial governor/army commander. Dura’s garrison contingents, then, had separate command and administrative organizations, but a need for some degree of co-ordination may explain why administrative facilities were spatially concentrated, and partially intermeshed, in E7.

It seems clear that the legionary HQ was established in the new *principia* building, constructed in the heart of the old NW camp area, while the records of *cohors XX Palmyrenorum* were found in the older military compound in the adjacent Temple of Azzanathkona. This suggests that, while organizationally separate, legionary and auxiliary HQ staffs

operated in close physical proximity, and for functions like morning orders groups perhaps shared the *principia* hall with its two tribunals. The granaries, known to be plural, will have offered a similar picture, apparently being grouped together but with each contingent separately managing its own stores, having to account for them. The soldiers doubtless shared other facilities, from the amphitheatre to baths, and certainly temples. Deep in the NW part of the base plausibly long home to auxiliaries, incoming legionaries rebuilt the Mithraeum, and graffiti attest subsequent joint auxiliary/legionary use. Legionaries are also attested worshipping in the 'Palmyrenized' Temple of Bêl (PR 4, 68–71, no. 168).

If we can show they worked, worshipped, and probably played in the same spaces, identifying with confidence where each specific contingent resided within the town is currently beyond us. Specific evidence would need to be in the form of patterns of multiple explicit texts in accommodation areas. Given what has been found already, it is possible such evidence does yet exist in dipinti and graffiti on remaining intact walls of the unexcavated military housing, but its recovery would require impracticable total excavation.

If the Palmyrene archers, presumed to have been based around their own Mithraeum, indeed became *cohors XX Palmyrenorum*, we might suggest that the cohort was always based in the NW corner of the city, which fits with its records being in the Temple of Azzanthkona compound. However, that was also apparently the HQ of *cohors II Ulpia* in the 190s. Could *cohors XX* have occupied the area W of the proposed early D St base axis, with *cohors II* on its E side, with the Citadel/wadi zone mainly used for purposes like training on the *campus* more than residential accommodation? The Yale expedition suggested *II Ulpia* occupied the E4 house and adjacent blocks (PR 6, 29), so concentration of billeting in the NW area might sound feasible. E8 by the *principia* looks first to have been occupied by cavalry, later by infantry, which could equate to *equites* of *cohors II* later being replaced by legionaries.

However, the NW zone simply was not big enough to house Dura's two auxiliary regiments. It was roughly double the size of, for example, quingenary *cohors equitata* forts like *Segedunum* (Wallsend), base of *cohors IV Lingonum* on Hadrian's Wall (Hodgson 2003; Croom and Rushworth 2016), but two milliary cohorts would require roughly double that again. And this is not to consider dependants. At sites like Wallsend the extended military community was accommodated across both the fort and adjacent *vicus* of comparable size. It was suggested above (pp. 270–271) that Dura's Roman garrison may originally have occupied two zones, with *cohors XX* in the NW, and *cohors II* in and around the Citadel, but did these zones accommodate their dependants too? A broader consideration is required of how Dura's contingents and extended military community were billeted.

HOW WAS ACCOMMODATION ORGANIZED?

Much of the military quarter comprised accommodation, so how was this allotted? Not least, where did all the military dependants live? Pollard thought that the base was primarily for the soldiers, their dependants mostly living out in the civil town (Pollard 2000, 56). It is clear that some members of the extended military community did live out in the city, e.g. the long-term military households established in L7-A, the House of the Roman Scribes. However, as we saw, there is substantial evidence for women and children inside the base, leading us to conclude that most dependants lived in. The base area was, then, the equivalent of a European Roman fort and its extramural settlement combined. But within this zone, was there ever at Dura anything equating to the spatial segregation between formal fort and *vicus/canabae* as commonly seen in the second and third centuries in Europe, and perhaps some contemporary sites in the East? Tell el-Hajj, for example, looks to have had a bipartite 'fort-*vicus*' structure (Krause et al. 1972; Bridel et al. 1974; Bridel and Stucky 1980)? Such an arrangement has commonly been taken to indicate general separation of soldiers from civilian 'camp followers', connected with the continuing formal ban on officially recognized marriages. However, we might expect strictly military servants to live with their masters, i.e. mostly inside bases. But what of domestic servants and families? Stoll thought soldiers' families did not generally live inside fort walls (Stoll 2006, 269, 272, 284). As Dura's military quarter largely antedates the apparent Severan relaxing of a ban on cohabitation, if not formal marriage in service, it is possible that initially it did exhibit some internal segregation analogous to the supposed 'fort-*vicus*' distinction, with many dependants living near but separately from their soldier menfolk. For example, the space in the N of the city between the two initial base nuclei may have been taken over early as a quasi-*vicus*, maybe with the 10th St line as a demarcation between dependants of *cohortes II* and *XX*. Perhaps a substantial internal redeployment ensued if cohabitation rules were really relaxed. However, the Vindolanda evidence suggests that soldiers' cohabitation with families, even inside fort barracks, was already tolerated to a least a limited degree by AD 100 (p. 252), while it is likely that second-century 'fort-*vicus*' complexes in Europe in practice saw significant cross-over, with trusted soldiers 'living out', and some families living inside the walls. Further, the proposed 'different rules for urban *hiberna*' (p. 273) may well have made cohabitation with families easier, even routine, in city garrisons before the annexation of Dura. At least during the final years of the city accommodation even in the heart of the base comprised, in modern terms, married quarters, as the artefacts from E8 indicate, although some housing was likely reserved for groups of young soldiers with as yet few or no dependants.

In any case, we would expect that half or more of the area of the base would be given over to accommodation, for the

commander, officers to the rank of centurion and decurion, ordinary soldiers and their *familiae*.

At one extreme, the Roman Palace offered facilities suitable for visiting dignitaries, and was literally fit for an emperor slumming it on campaign, although this structure was more 'civil and diplomatic service' than military, even if the garrison built it and saw to its maintenance. The J1-A house, however, has always reasonably been interpreted as a senior officer's residence, grand enough for equestrian tribunes commanding *cohors II Ulpia* or *XX Palmyrenorum*. Much of the base zone comprised accommodation for ordinary soldiers and presumably officers, military housing exhibiting characteristics distinguishing it from contemporary civil dwellings (Baird 2014, 147). Most comprised converted Durene civilian housing, with more built on previously open ground, comprising distinctively military structures of irregular layout.

Military housing was generally subdivided into 2–3-room units often smaller than those of civil houses, through blocking doorways and building relatively flimsy partitions. House courts and open yards remained important, but some were reduced to little more than light-wells by extending accommodation into them. Floor space was also extended by partial or complete overbuilding of some adjacent streets. Like most of Dura's civil housing, military accommodation generally appears to have remained single storey, although where adjacent defensive walls provided solid backing, it could be multi-storey. All this suggests pressure on living space within the base. Staircases in many civil houses suggest roofs were traditionally used as additional working and sleeping space when season and weather favoured it. While no formal stairs are identifiable in much military housing, wooden stairs or ladders likely allowed the same functions. Some yards and rooms possessed plaster troughs perhaps with flagged floors, evidently serving as stables. Notably in block E8 there were many structures, some created from *dolia*, interpreted as cooking ovens and/or winter fireplaces. Baird remarks that the military zone exhibits markedly greater food storage and cooking capacity, in the form of *dolia*, grinders, and mills as well as ovens, than is apparent in the civil town (Baird 2014, 147).

At Dura, were particular city blocks or component houses assigned to centuries, *turmae*, etc., as the excavators suggested (*PR* 6, 29)? Where, indeed, were centurions and decurions housed? As noted above, their accommodation was a distinct category in European forts, comprising a substantial house at the end of each barrack block, nearest the base perimeter so that officers were positioned to lead their men to rampart or gates—and lived between them and possible desertion. We cannot clearly answer these questions for Dura yet. However, the apparent building-over of the portions of 10th St between J1 and J2, and between J3 and J4, created 'superblocks' perhaps roughly analogous to (if much bigger than) traditional barrack blocks. The adjacent excavated block E8 seems to have had grander

accommodation at its S end, with an elaborated porch on E St. Was housing for centurions and decurions perhaps concentrated in the S ends of the blocks along the axial 8th St? The especially elaborate early accommodation in the great E4 house, suitable for a senior centurion *praepositus* if not an equestrian unit commander, was also on this line near the early NW enclosure entrance.

Were the housing sub-units characteristic of most of the housing analogues of the two-room *contubernia* in forts, accommodating sections of eight soldiers, or family units, especially for older, more senior soldiers? They might have suited either, though perhaps both squads of soldiers and their servants were squeezed into some. As we have seen, military housing spilling onto roadways, and even comprising multi-storey constructions against defensive walls, certainly gives the impression that the soldiers were crammed into their N quarter at significantly higher densities than the civil population to the S, suggesting by our standards squalid and unhealthy overcrowding. It is quite conceivable that this was accepted as the norm by the occupants: van Driel-Murray cited comparable densities of soldiers and families in barracks in the early twentieth-century Dutch East Indies (van Driel-Murray 1995, 12–14).

However, the sprawling of military accommodation might have a very different explanation. It certainly suggests pressure on space within the base, but is no direct measure of occupation density, which may not have been determined by contemporary practice in forts. It was proposed above that the Dura base exemplifies another, distinct tradition, derived directly from republican times, of urban *hiberna*, which generally involved placing troops in existing housing. Often billeted on still-resident civilian households and only for a few months, there was neither time nor need for structural modifications. The soldiers, spread over the town, presumably lived a largely urban rather than campaign lifestyle—an expectation which may well have endured into imperial times. Creation of longer-term intramural bases like Dura's meant that soldiers were allotted existing spaces in civil housing. The irregularity and crudity of much of the housing conversion at Dura indicates that blocks were not systematically converted to any integrated plan. Perhaps, within overall permissions and constraints (like being allowed to build on just half of roadways), individual soldiers or groups may have been allotted parts of properties and told to modify them as they saw fit, and could afford.

SUPPLY AND PRODUCTION

Dura's garrison community will have consumed massive quantities of materiel. Some will have been acquired as requisitions and taxation in kind, but much of the process will have resulted from the flow of imperial funds, leading to regimental purchases and filling soldiers' purses on periodic pay days.

Almost everything the garrison consumed or used (apart from harvested rain water, pumped river water, and perhaps some building stone) had to be brought in through the city gates. Much will have been in the form of basic military supplies, above all wheat, stockpiled in the *horrea* and issued as official rations, and fodder. It also demanded a great range of manufactured goods, from pots to brooches.

Water Supply

Dura stood in a dry land with no higher ground nearby to permit construction of a gravity-fed aqueduct from a pure spring. Many Parthian-era houses possessed cisterns to capture the limited and unpredictable winter rains, but these were quite inadequate to sustain the city population and the stored runoff was perhaps only fit for tasks like cleaning and laying dust. It is anyway not clear that the Roman garrison everywhere maintained the civilian rainwater cisterns, although some certainly were still used.

Those soldiers and civilians who could afford to probably drank wine where possible as a safer alternative, but for all domestic and industrial purposes the main source of water was the Euphrates. The city was too elevated for supply by *norias* (current-driven water-raising wheels), even if these had yet been invented, so Dura relied on human or animal muscle power to raise river water to the plateau. As we saw, an elevated aqueduct and buried ceramic pipelines imply military-built and -operated pumping machinery around Tower 5 and the River Gate raising water for use in the baths (*PR* 6, 100–1; reconstructed as a series of force-pumps in Pl. XXIV). Nothing is known of their specifics, but their operation will have placed a constant demand on animals and/or slaves who themselves needed to be maintained. It is implausible that these water systems had the capacity to fulfil all the needs of the garrison community and its stabled animals, and there is no sign of a system of street fountains, although there might have been a roadside water shrine at the E3 bath. Nevertheless, for domestic purposes both base and city must still have relied on water brought from the Euphrates in animal skins on pack-animals or human backs. Several civilian graffiti mention purchase of water, perhaps attesting commercial carriers (Allara 1988, 338; Allara and Saliou 1997, 152; Baird 2014, 100 n. 244).

For some jobs, the people doubtless went to the water; we may imagine parties of soldiers' servants, wives, and daughters often joining their civilian counterparts streaming out of the River Gate to wash clothes on the riverbank.

Foodstuffs, Fodder, and Fuel

A four-figure human population, plus resident mounts and pack-animals likely totalling hundreds (though most of the garrison's livestock will have spent much of its time outside the walls), implies daily consumption of staples such as bread

and fodder measured in tonnes. Much of this will have been produced in Dura's hinterland, from barley to wine (Ruffing 2007, 401–2; Kaizer 2017, 77–8). Barley was purchased locally, but in military use will have been largely for horse fodder (implicit in *P. Dura* 64). Wheat is apparently not mentioned in the military texts, due to chance or perhaps because this key foodstuff was not sourced locally, but comprised requisitioned supplies imported by river from the grain-lands upstream.

Supplies will also have been transported into the base on donkeys, mules, camels, and perhaps ox-carts (two iron-bound vehicle wheels were found near the Palmyrene Gate: neg. B265). Meat will mostly have come in on the hoof; the sacrifices listed in the *Feriale Duranum* imply a herd of cattle each year just for religious feasts. The extensive oven facilities seen in the military zone were doubtless for domestic cookery but likely produced biscuit for field rations.

While dried animal dung offered a free potential source of fuel, much domestic cooking, winter heating with braziers or the *dolium*/amphora fireplaces as seen in e.g. E8, and above all running several bath-houses, will have required firewood probably amounting to tonnes per week. Metalworking will also have required supplies of charcoal. The implied quantities of wood astonished Pillet, given the deforestation of the region in his time (*PR* 2, 19). It is possible that much of the supply could have come from managed coppicing on the nearly banks and plain of the river, although it may be that boatloads were brought from regions upstream.

Building Materials

Construction of the amphitheatre, and indeed of the other known military buildings, also implies large quantities of much larger timber, for posts, beams, and rafters, almost certainly unavailable in the region. However, these could have been supplied relatively easily via one-way shipping down the Euphrates from upland forests, and not necessarily as cargo. Around 1900, boatloads of grain were shipped down the Euphrates from Birejik to Baghdad where the boats, too, were sold, apparently for their timbers (Bonatz et al. 1998). Sale of a boat by a military river pilot in AD 232 recorded in the so-called Middle Euphrates papyri (*P. Euphr.* 11; Feissel and Gasco 2000, 158–63) may attest such practices.

For building new structures and maintaining extant ones, mud brick was doubtless made by the river, the banks of which also produced reeds for the matting used in roofing, with gypsum construction stone and *djuss* mortar/plaster procured from sources within and around the city. Multiple kilns were found in the city, although none specifically identified for firing the tile, brick, and ceramic pipes used in the base and baths. However, these may mostly have been outside the walls, near the sources of clay, water, and fuel in the

river valley, if ceramic building materials were not imported by boat from, perhaps, legionary brickworks far upstream.

Supply of Other Materials, Equipment, and Goods

As we saw, bulk military supplies were likely shipped down the Euphrates from as far upstream as the legionary bases at Zeugma and Samosata, on boats which could not return against the fierce current. These therefore either continued to outposts downstream or were broken up at Dura for constructional timber and fuel. Such military shipping, perhaps supplemented by commercial vessels whether operated by Durenes, Palmyrenes, or others, may well also have bought other Syrian products to the garrison and the civil community.

However, much, probably most, of the material culture used by the garrison community was locally produced, in the city or vicinity. Civilian Dura possessed a wide range of crafts and industries, including production of glazed ceramics and glass, metalworking and tanning. The agora therefore likely supplied many of the needs of the military community, certainly domestic and perhaps specialist. It was routine for soldiers to acquire armour and weapons, especially expensive display kit, from skilled civilian smiths, some specialized armourers. Was the painter of the scenes of the Trojan War and of Greeks fighting Amazons on shields found beneath the anti-siege embankment a civilian or military artisan (*PR* 7/8, 331 and n. 7)?

At the same time, the garrison community itself represented substantial productive capacity. While no mention or trace is known of any specialist military manufacturing facility resembling the *fabricae* of legionary bases which were effectively arms factories (unless the enigmatic block L4 outside the base fulfilled this function), significant output of items like the multiple copper-alloy fittings needed for military dress and harness could have gone on inside the base, as dispersed, small-scale production which need leave few archaeological traces. Soldiers and their servants very likely undertook the lion's share of the constant need for equipment repair.

They also needed a regular supply of new clothing. While textiles used at Dura, at least in Arsacid times, included imported silks, most were produced locally. In Roman times some were certainly made inside the military base, as spindle whorls and loom weights attest. It is likely that many of the soldiers' undergarments, tunics, breeches, and cloaks were made by their own wives and other female dependants, although the wool and linen they were processing and weaving was, however, probably local.

Waste Disposal

A human and animal population consuming tonnes per day will have produced equivalent quantities of biological waste, not to mention other domestic and industrial detritus. The

baths in particular generated huge quantities of ashes over time. Those in C3 and M7 were close to the city gates, ashes from the latter forming part of the dump outside the Palmyrene Gate. At the E3 and F3 baths in the base itself hypocaust ashes were simply dumped in huge piles around the back of the heated suites. But otherwise, in the military base as in the civil town, deep occupation deposits were not allowed to accumulate inside or around buildings. Some rubble and other materials were dumped on road surfaces (notably Wall St where deposits were well over a metre deep), or deliberately laid to raise them.

While the various Roman baths had latrines and dedicated drains, Dura had no central sewage system. Animal dung might have been dried for cooking fuel, and much human waste collected and used for industrial processes like fulling. But much, along with other domestic waste such as food debris, broken pots, etc. was evidently removed from the site, being carted out of the city to the river plain or to the great dump outside the Palmyrene Gate.

What Was Life Like in the Base and City?

The foregoing implies the base was likely usually very crowded. In hours of daylight, except in midday summer heat, dust-storms or downpours, its streets and working spaces will have been busy not only with soldiers, male servants, women, and older children moving around to perform myriad tasks, but with a large if transient and swiftly churning population of animals. With so much livestock, and so many human bodies, ovens, hearths, and smoky bath houses, the military quarter may well have been smellier and more squalid than the civil town.

A great deal of daily and other routine military traffic passed through the city streets between the base and the surrounding region, the great bulk of it passing through the River Gate rather than the Palmyrene Gate. There will have been frequent movements of laden pack animals, and of horses, mules, and camels on rotation out to exercise and pasturage on the Euphrates plain via the River Gate and, after a wet winter, through the Palmyrene Gate to graze the steppe grasses. The intensity of this traffic likely created congestion in the lower city at some times of day, perhaps a major motivation for the road widening scheme on Lower Main St forming part of the C3 bath construction project.

THE DAILY ROUND AND LONGER CYCLES

There will certainly have been a regular diurnal cycle in the base, perhaps punctuated by trumpet calls marking the times of day and changing military watches by night (Polybius 6.35.1–5; Vegetius 3.8.17; Pseudo-Hyginus 1; Aeneas Tacticus 22.24–5), if these were kept in *hiberna* as well as in the field. Texts from Egyptian forts suggest that nights were indeed divided into the same four watches observed on

campaign, and that these were measured by clocks (Haynes 2015, 114, 117–18). We can nevertheless imagine bustle at dawn, as town and garrison came to life, and the city gates were opened. There were also likely set times, perhaps determined by a water-clock (von Petrikovits 1975, 75, 174 n. 79; Haynes 2013, 145), for morning orders in the *principia*, relieving of guard details and assignment of other duties for the day. Parties of soldiers will have assembled on the *campus* for drill, departed on route marches, or rode out to a prepared ground, probably nearby on the river plain, for cavalry exercises. On a daily basis pack animals and wagons will have delivered large quantities of drinking water, fresh food, fodder and animal bedding, supplies for the *horrea*, and fuel for cooking, winter heating, and the baths. Rations would be disbursed to the soldiers, and redistributed around the camp, on the backs of servants. There would have been a constant stream of messengers coming and going within the base, some setting out for other stations or the provincial governor's *praetorium*. Cleaning, of buildings, possessions, and equipment, was especially essential in so dusty an environment, and will have been a major routine activity. Sweeping, and perhaps sprinkling of water to suppress dust as was the practice in republican marching camps (Polybius 6.33). In the 2000s, both were still required for the rammed earth floors of the expedition house. In Roman times such tasks will have kept many busy, as will removal of waste. The city gates were presumably closed at dusk, and then or later in the evening a general curfew enforced, with restrictions on movement for all but those on watch duties and the privileged.

The baseline diurnal cycle of life in the military area will have been modulated by overarching seasonal and annual rhythms, and punctuated by irregular episodes such as passage through Dura of other forces, especially in wartime. Each spring, for example, there was likely a burst of training activities in the weeks between the often bitter cold of winter and the debilitating heat of the summer months. The partially preserved *feriale Duranum* (Fink et al. 1940; Reeves 2004) reveals an established annual cycle of official imperial festivals, which, along with four pay-day ceremonies a year, and other regimental or local festivals (perhaps represented by the Terentius sacrifice). These would have punctuated the routine grind of a world which had yet generally to adopt the cycle of seven-day week with regular Sabbath. Some of these sacral activities may have alternated with more secular bloody entertainments in the amphitheatre, which supplemented the daily leisure opportunities proffered by the baths and *palaestrae*.

ADMINISTRATION, TRAINING, CEREMONIAL, AND RELIGIOUS RITES

In the early base, the main administrative centre for the garrison appears to have been the compound in the Temple

of Azzanathkona, across the street from the J1-A 'House of the Prefect', probably equating to the *principia* and *praetorium* of a fort. The grand E4 house also appears to have served both as an administrative building and officer's residence, perhaps for another contingent commander—the other auxiliary tribune? The SE corner property of E8 may also have had a lesser early administrative role, perhaps as the residence and office of one of the centurions or decurions.

After c.210, the dedicated *principia* building provided office space for garrison administration, and a large cross-hall for key military gatherings such as issuing of daily orders or commanders' briefings to his officers, and judicial hearings. Its two tribunals, and especially retention of the adjacent older compound in the Temple of Azzanathkona (where part of the papyrus archive of *cohors XX* was found), indicate that the *principia* was not big enough to administer all the resident contingents, or that it was convenient for these also to have their own separate spaces.

The large J1-A house across D St almost certainly continued to be the residence of the senior officer present; by comparison with other Roman bases, it was adequate as the *praetorium* for the equestrian tribune of *cohors XX*. If as is plausible the legionaries were normally under their own centurion *praepositus*, it is unclear where his *hospitium* lay.

With regard to locations within the city for training, and ceremonies such as pay parades, oath-taking, and sacrifices, this was presumably focused on the attested *campus* on the flat sheltered ground in the shadow of the Citadel, with its two known military temples. As was suggested above (p. 199), the portico of the Temple of the Archers, forming the focus of almost a natural amphitheatre at the head of the wadi, could have served as a tribunal on such occasions. However, on the plateau, the plaza between the Temple of Bêl and the entrance to the military compound in the Temple of Azzanathkona comprised a second substantial area of open ground, with what seems to have been a statue plinth. Here the Tower of the Archers could have served as a tribunal.

RELIGION: SHRINES AND TEMPLES

The military quarter contained many holy places of differing character, corresponding to Stoll's distinctions between 'official military religion' of imperial cult and veneration of state gods, 'semi-official religion' of regimental deities including the standards, and the private religiosity of Roman soldiers (Stoll 2001, 419).

For the official life of the garrison, the most important shrine will have been the *aedes* of the *principia*, containing imperial *imagines* and the standards of the resident military contingents. At Dura the latter comprised the *vexilla*—hanging banners—of *cohors XX Palmyrenorum* (Pl. I) and the legionary vexillations, plus perhaps *dracones*—dragon-headed windsock standards—of the cavalry, *signa* of Sarmatian origin (Coulston 1991), or indeed Parthian (Lucian, *How*

to *Write History* 29). The role of the *aedes* not just as a store of holy objects but also as a focus of active worship is emphasized by the Durene-style stepped altar facing it in the *principia* court. Here presumably took place sacrifices to the imperial cult, the Roman state gods, and to the standards themselves. Dipinti and graffiti suggest that in the early base, if not after the 210s, room 14 of the Temple of Azzanathkona military compound may also have served the same function as the later *aedes*. Lesser military shrines are also postulated in two early officers' residences/administrative facilities, in E4-23 and E8-12.

Three other sanctuaries look to be formal official creations of the garrison. The first focuses on the small temple E8-18/19 at the focus of the widened and colonnaded space created on the line of 10th St. Its dedication is unknown, and may relate to the original Durene deity in the corner of whose *temenos* it was built, but given its co-opting of the *principia* forehall, it may have been dedicated to a Roman deity. The other two are the *campus* temples, an apparently early and rather classicizing one dedicated to Zeus (equating to Jupiter), and the larger 'Temple of the Archers' dedicated to a single, unidentified deity.

The Mithraeum also appears to be an entirely military sanctuary, albeit, as dedicated to a selective cult requiring initiation, it was semi-private—although the 'Middle Mithraeum' inscription was dedicated by a commanding officer.

Several pre-existing Durene temples were also engulfed by the military quarter, although some, and perhaps all, continued to function at least to some extent under garrison control, with the Temple of Bêl and the 'Dolicheneum' clearly attesting military worshippers.

There were doubtless multiple other shrines in the military quarter, perhaps including one to Nemesis in the amphitheatre. Beyond the base, there was a roadside military shrine in the Palmyrene Gate, likely mirrored at the River Gate. And this is not even to consider soldiers' personal and domestic religion, perhaps attested by the motifs on their equipment, and finds from their accommodation such as the eagle figurines from the housing abutting the 'Dolicheneum'. Indeed, the base area was dotted with so many sanctuaries large and small that it constituted a sacral as well as military landscape as dense and rich as that of the temple-studded civil town.

AMENITIES

Baths

Hypocaust baths were a fundamental amenity of imperial military establishments, and two (the F3 and original E3 baths) are to be ascribed to the early base. Conversion of the F3 facility to an amphitheatre was an available option because by the time the F3 bath burned down, shortly before

216, the city possessed two further major bathing establishments on Main St in M7 near the Palmyrene Gate and in C3 near the River Gate and adjacent to the S end of the base. The other, riverside bath in the Roman Palace was accessible only from within the residence, and is the only private facility known at Dura. (It is doubtful whether the hypocaust room in the early military phase of the E4 house was a bath as such.)

Amphitheatre

Although we know the Dura amphitheatre was certainly named as such locally, the multifunctionality of Roman entertainment structures meant that neither their designs nor their labels were closely prescriptive regarding what went on within them (Dodge 2009). In the Dura arena gladiatorial fights are to be expected as entertainment for the soldiers. Military sponsorship of gladiatorial games is attested in an inscription (PR 9.3, 112–14, no. 972), one line apparently implying 'that the *centurio princeps* and others in the cohort had presented gladiatorial games' (PR 9.3, 114). This proves that depiction of gladiators in Durene graffiti was no mere conventional Roman iconographic motif, e.g. from C7-C4 (Fig. 5.50; PR 5, 38–9, pl. 33.3) and from E7-14 in the Temple of Azzanathkona military compound (Fig. 5.10; PR 6, 484–5, fig. 31). Another graffito shows a man fighting a lion (PR 2, 2, 199, pl. 43.1), suggesting *venationes* were also likely a feature of the amphitheatre programme; its arena wall was high enough. If the garrison could hunt lions and boars in the region as other dipinti and graffiti indicate, it could certainly also have procured some for the Durene arena, and was possibly involved in supply of animals to Antioch and beyond (PR 9.3, 48–9). Other formal military uses for the arena may be imagined, perhaps including exemplary executions (Stoll 2001, 116–18; Sommer, S. 2009, 60). In the apparent absence of a theatre, stage shows might also have been improvised in the arena. Other possible major uses for the amphitheatre will be discussed later (p. 291).

'MISSING' OR UNLOCATED COMPONENTS

No evidence is known for some structures commonly encountered in larger Roman military bases in Europe. For examples, there is no trace of any major military workshop (*fabrica*) or hospital (*valetudinarium*), though this could be due to *lacunae* in the textual evidence and incomplete excavation. Perhaps the former was not needed; as suggested above, for smaller-scale requirements, local civilian or military artisans in hard-to-spot small workshops within or outside the base probably sufficed; it was also suggested that the work/shops in block L4 might have constituted a custom-built military market. For specialist equipment like artillery, or large-scale supply of arms, the legionary contingent and

perhaps the *auxilia* too might have drawn on *fabricae* at the legionary depots far upstream. Similarly, for medical needs the garrison may have sent long-term sick who local military *medici* or civilian doctors could not help to legionary base hospitals, or centres of healing in other Syrian cities.

Finally, there is the question of where the military community buried its dead. Over so many decades we would expect a total of deceased soldiers and veterans in the thousands through causes other than battle, including disease,

accident, and indeed old age, and this is not including dependants. They were doubtless interred in the city's extensive extramural necropolis on the plateau beyond the walls, but was there within this a specifically military cemetery zone? We actually have just four stones bearing military funerary inscriptions, all found inside the walls (*PR* 9.1, 181), presumably having been brought into the city either to protect them or just as building material during the preparations for the anticipated Sasanian siege.

Impact of Garrison and Base on the City

What effect did the military base and the people who occupied it have on Dura-Europos, as both civil community and urban landscape? It was clearly profound, seen in the military transfiguration of so much of the city's fabric. But was it as traumatic and negative as Rostovtzeff and his colleagues envisaged, with a once-proud Greek *polis* reduced to a diminished, cowed, and brutalized satellite village of a Roman military camp? Or was it indeed more benign or even positive, seeing cordial shared urban prosperity based on a military-pay-induced economic boom, as more recent commentators like Stoll, Reeve, Sommer, and Ruffing have variously sketched (pp. 24-25)? What does the new study of the archaeological evidence indicate?

In some ways, it is now clear that impact of the military was even greater than the Yale expedition realized. As we have seen, the base area included the Citadel and most or even all of the N branch of the inner wadi, and so was significantly larger than hitherto thought. On the other hand, far from being the result of a sudden, short, massively disruptive episode of appropriation, conversion, demolition, and building c.210 as envisaged by Rostovtzeff, the base evolved incrementally over half a century, apparently beginning with the Palmyrene archers' cantonment of the later 160s. This reflected a history of residence of substantial Roman regular forces in the city starting considerably earlier than previously envisaged, correspondingly characterized by incremental change. On present evidence, instead of massively expanding c.210, resident troop numbers may have peaked c.190, with little or no increase when the garrison was reshaped c.210, which episode saw qualitative change (replacement of some *auxilia* by legionaries), rather than quantitative. We have no clear evidence of significant subsequent variation in troop levels between the 210s and 250, although these cannot be ruled out.

There was, then, a large presence of Roman troops inside the walls during the last decades of the second century, as well as the first half of the third. This has significant implications for wider political history, as well as local affairs. Notably, a major presence of imperial Roman troops in the later second century—even if half of them were Palmyrenes (or at least, in a nominally Palmyrene 'ethnic' auxiliary unit)—offers a major objection to Luther's and Kaizer's

hypothesis of a Palmyrene protectorate over the city following the end of Arsacid hegemony, supposedly AD c.165 (p. 22). At Dura itself, the influence of garrison and base, if not starting as suddenly and traumatically as previously thought, now looks significantly longer lasting. Further, overall Roman military impact may also have been yet more extensive and pervasive in indirect ways.

MILITARY DOMINATION OF BOTH URBAN SPACE AND TIME

In a sense, the modest early imperial military presence at Dura, whether the proxy force of Palmyrene archers or even the incoming *cohors II Ulpia*, could be seen as just one more alien enclave in multi-cultural Dura, like the expatriate civilian Palmyrenes or (if they had not fully integrated) Anathenes. However, this soon changed. The new understanding of the Roman base has major implications for the dynamics of cohabitation of the intramural communities, military and civil. The emergent reality was that it was not only the base area and other select locations of the city interior which the military controlled: in addition to sequestering major sanctuaries within the military quarter, the garrison also monopolized important routes and regulated intersections within the city. Part of the ethos of the military was incessant toil and activity, so the garrison was likely even more obtrusive than its mere numbers. As almost all movements into and out of the base had to pass through the civil town, many of its streets will indeed often have swarmed with soldiers and military traffic.

Above all, the garrison controlled the walls and gates. In practice it surrounded—physically encapsulated—the civil population. By the end of the second century, the civil town had almost become an enclave within a military station. This encapsulation would have been most obvious when the city gates were closed, as they presumably routinely were from dusk to dawn; the dominance of the military presence was not only spatial, but also temporal. Daily life in Dura now moved to the rhythms of military time, trumpet calls likely echoing across the city, marking the temporal divisions

of day and night (p. 282). The annual cycle would also now have been punctuated by imperial festivals with sacrifices and ceremonies of the official Roman gods and the imperial cult, plus specifically military events, not least periodic pay parades. All these overlay, if they doubtless did not entirely displace, the traditional civic rhythms of Parthian times.

The Roman military presence was, then, deeply pervasive and inescapable, not only occupying a large part of the city, but impinging on life in every corner of it: Rostovtzeff and Welles were right about that (p. 22). Yet at the same time, the military's archaeological imprint contains some highly informative details which give a very different impression, one which simply does not fit with brutal and insensitive military occupation.

CRITICAL DETAILS IN THE BIG PICTURE: SIGNS OF MILITARY CONSIDERATION FOR CIVIL DURA

We should ... seek to show that urban landscapes offer a different way of expressing and understanding relationships within and between communities.

Baird 2012a, 42

It has become proverbial that God, or according to preference the Devil, dwells in the detail, and some of the most important clues to military-civilian interaction from Dura are to be found in things as lowly as the positioning of wall lines. For detailed examination of the military reconfiguration of the urban landscape suggests that something more complex and subtle than simple imposition of the military will was going on in the way the garrison authorities created the base inside the city. Diverse examples are to be seen, from military housing to temples and other communal facilities.

Military Appropriation of Housing in K5

One of the first indications encountered during this project of something other than crude imperial expropriation was the curious construction line of the mud-brick camp wall across block K5 (p. 155). The wall attests military takeover of existing housing on the S side of 8th St, and its separation from continuing civil occupation in the rest of the block. Had the military authorities simply requisitioned what they wanted, without regard to the civilian community, they could have seized the adjoining properties too, demolishing them and using their plots for the boundary wall and a wider swathe of ground as *cordon sanitaire* between base and civil housing. But they did not do this. Strikingly, they seem instead to have gone to painstaking lengths to minimize impact of military takeover on K5, and the several other blocks cut by the wall.

They achieved this by constructing the camp wall, with a minimal space barely a metre wide outside it, within the footprint of the two existing requisitioned houses facing onto 8th St. In the process these had to be partially demolished and rebuilt, and were significantly reduced in area as a result. In short, in K5 the garrison took care to respect the existing property boundaries between the requisitioned houses and adjoining dwellings remaining in civil hands. Here military takeover was not conducted by unilateral *Diktat* regardless of consequences for civilians. Imposing the base was an imperial decision which Durennes had to live with, but the K5 evidence indicates its creation was carried out with attention to civic legal considerations of property ownership, giving some recognition to the fact that this was, after all, now a Roman town, with an at least nominally friendly population. Rather than simple expropriation of earmarked houses, it likely involved purchase, albeit doubtless compulsory and at army-determined prices which may or may not have approximated civil valuations.

The evidence from K5, then, indicates that military acquisition and conversion of existing housing was the outcome of a process of negotiation between the military and civic authorities and property owners; conducted under highly asymmetric relations of power, to be sure, but negotiation nonetheless. In the building of the camp wall, we see the military treating at least some townsfolk with a measure of consideration. These observations led me to consider what other features of the military presence imply about the actions of the base planners in relation to the existing city, and their attitudes towards it. Their treatment of existing temples is particularly revealing.

The Military, and Dura's Gods and Temples

Several pre-existing sanctuaries were incorporated within the base, and experienced mixed fortunes. Some of Dura's gods may seem to have fared very badly at the hands of the military. The anonymous X9 temple in the far N of the city arguably provides the extreme example. MFSED showed that it was decommissioned and systematically destroyed, and suggested this occurred at Roman takeover (p. 183).

While publication of the X9 evidence is awaited, it now seems virtually certain that another, hitherto unrecognized Parthian-era temple in block E7, again of unknown dedication, was almost entirely destroyed to make way for the *principia*. This appears to have been another courtyard sanctuary, similar in size and conformation to the neighbouring Temple of Azzanathkona (pp. 88–90).

Yet other sanctuaries remained essentially intact, including the Temple of Azzanathkona itself, although this was partially commandeered by the military at an early stage, and it has been argued that the sanctuary shows no sign of continued use in Roman times; there are no texts dedicated to its cult datable to after 165. However, the Temple of Bêl in the

far NW corner of the city was in use throughout the military period (p. 62). There are clear traces of military veneration in the sanctuary, most famously the Terentius painting. It is also argued that the temple 'Dolicheneum' in X7 was not built by the soldiers as hitherto thought, but was another civil sanctuary of the Parthian era engulfed by the base (p. 181). Its original dedication is unclear, but it, too, was used by soldiers for worship of a range of deities, with Dolichenus apparently venerated at a street-side shrine against its front wall.

All this seems in line with the received picture of establishment of the base cutting off the civil population from their N sanctuaries, which the garrison treated as they pleased. The soldiers supplemented these existing sanctuaries with new shrines of their own, in the *aedes* of the HQ building and at least two military temples on the *campus* (one to Zeus, the other, the Temple of the Roman Archers, of uncertain dedication), while additionally rebuilding the Palmyrene archers' Mithraeum.

Apart from the shrine of the standards in the *principia*, it is uncommon for known Roman bases to have temples in their interior. The varied fates of the Durene shrines are explicable strictly in terms of Roman military needs and religious scruples, with results apparently varying from destruction of those deemed in the way, to partial desacralization and/or continued but modified veneration in others. Where shrines were retained and new gods introduced, this was probably alongside the existing incumbents. Respect for the last could represent sincere yet self-serving Roman piety, and their venerable tradition of respecting the deities of other cities, including those of conquered ones.

Indeed military disruption of worship and active mistreatment of temples may be more apparent than real. Downey notes that inscriptions in Dura's temples are relatively meagre anyway, so concluding cessation of worship on the basis of lack of texts is dangerous; it could instead mean change of rites rather than end of worship (Downey 1988, 172 n. 61). The date and reasons for deconsecrating the X9 temple remain uncertain, and plausibly belong to a general desacralization of sanctuaries associated with the hypothesized evacuation of the civil population in anticipation of Sasanian assault: evidence for a process which Baird calls 'planned abandonment' in which altars and sculptures were hidden or broken but the fragments carefully deposited (Baird 2012b, 315; for a detailed account see Coqueugniot 2012). The departing faithful were probably taking their gods with them, in the form of statues and religious standards, but desanctifying their former abodes 'to deny them to the enemy'. The recently discovered sanctuary in M5 was certainly decommissioned before the siege, during which the space was used as an arsenal by the garrison during the fighting (Baird 2012b, 315; Leriche 1997c).

Even where the military authorities certainly decided to demolish an existing temple at an earlier stage—the sanctuary

largely razed to permit construction of the *principia*—they seem to have gone to remarkable lengths to mitigate impact on the unknown incumbent deity. As detailed above (p. 90), concern to leave the main *naos* of the former *temenos* intact seems to have been the reason for deciding to site the *principia* in its rather odd position. It was argued that the W and S parts of the old *temenos* thus carefully preserved were radically reorganized into a continuing sanctuary, loss of much of its old site compensated for by extension elsewhere. It now also straddled the widened 10th St where a new, E-facing shrine building and colonnaded court (E7-18/19) were erected, using the *principia* forehall as a porch (Fig. 5.26). Further, the colonnaded stretch of 10th St now served as a sanctuary forecourt, not coincidentally similar in size and shape to the 'temple approach' on the N side of E5 which provided an area for gatherings in front of the sanctuary of Azzanathkona. Indeed, the architectural setting of the new 10th St sanctuary echoes the *naos*, court, porch, and 'plaza' of the Temple of Azzanathkona just to the N (Fig. 5.26, c). Thus continuity of the holy ground in E7 was preserved and even extended, albeit as a distinctly military sanctuary, probably additionally dedicated to a new, Roman deity.

Were the old temples marooned within the base now indeed reserved solely for military use, as has quite recently been restated (Leriche et al. 2011, 35)? Or were civilian clergy, at least, allowed regular access to the temples? Generally, any demonstrably late texts from these pre-existing sanctuaries appear to be military. However, temple epigraphy, even including graffiti and dipinti, does not necessarily give a full picture of worship. Civilians could still have had some access to the sanctuaries, but on a restricted basis with fewer chances to leave their mark. One painted scene in the Temple of Bêl does seem to attest civilian worship at this sanctuary deep inside the military base. The sacrifice of the *bouleutes* Iabsymos and the eunuch Otes depicts a ceremony within the temple, apparently during the military period (Cumont 1926, 125–8, fig. 26, pls LV–LVIII; Andrade 2013, 238).

This example might be explained away as exceptional, involving individuals of Palmyrene origin with especially close connections to *cohors XX Palmyrenorum*, getting special permission to sacrifice in what was now de facto a military sanctuary. However, consideration of the non-Palmyrene Temple of Azzanathkona in its wider context, again drawing on stratigraphic and spatial archaeological arguments, suggests that, contrary to established opinion, civilian access to the shrines in the base may have been regular and even facilitated by the garrison.

The main E entrance of the Temple of Azzanathkona opened onto a colonnade facing the broad open area which the excavators labelled 'temple approach', recognizing it marked the primary access to the sanctuary, from F St (Fig. 5.26). The excavators believed this to be a new, Roman-era arrangement, created when E St was closed by

construction of the *principia*. However, inspection of the evidence from E7 and E5 suggests that the temple approach was a Parthian-era creation, paralleling the large triangular plaza before the Temple of Bêl to the W (Pl. XXIV). The latter focused towards the upper end of D St, an especially broad road running S along the W boundary of the agora district to intersect with Main St. Spanning D St at its junction with Main St was some kind of elaborate portal. Excavated by Yale, it received no specific discussion, just being lumped together with structures blocking the street to its N (G8-C1 and C2: *PR* 9.1, 2, 52, and fig. 78). The nature of this portal is unclear, and it might have been associated with the nearby street blocking which the excavators assigned to the 'late Roman period'; certainly D St lost much of its function when blocked by the Roman 'camp wall' to the N. However, in plan this structure looks quite grand. It seems intended to frame the entrance to the road leading N towards the plaza before the Temple of Bêl. It is suggested that the arch was actually Parthian-era; and that before Rome D St served as a monumentally framed route, suggested to be for religious processions (Pl. XXIV).

Processions are attested features of religious life during the period. They were part of how people made sense of the world, and constructed their identities (Revell 2009, 115). MacMullen has noted evidence for hundreds of religious processions as regular features of urban life in Greece and Asia Minor, some cities holding several each year for different deities (MacMullen 1981, 27). A remarkable inscription from Ephesus records details of such a religious procession, on average fortnightly, funded by a bequest in the early second century (Rogers 1991, 69, 161–3). Starting at the Temple of Artemis outside the city, it proceeded along main thoroughfares and stopped at the theatre before returning to the temple. Young men carried statues (plural) of Artemis, and imperial images (showing how imperial cult could be woven into civic religion). Whether the deceased's wishes were observed to the letter or not, this inscription suggests what urban religious processions were like—and their potential frequency.

Similar processions were a Syrian and Mesopotamian tradition in pre-classical times. Continuing into the Roman era, these involved statues or other symbols of the gods, carried aloft or pulled on wheels, accompanied by song and music, sometimes torch-lit night-time events. 'Some Syrian deities made annual pilgrimages from their temples to water, perhaps for a ritual bath in sea or river; others were carried to a theatre for ceremonies' (MacMullen 1981, 28). Lucian described the statue of Apollo of Hierapolis, which functioned as an oracle by directing the priests who carried it (Lucian, *On the Syrian Goddess* 36). Lucian claimed to have attended the rite, which suggests a public procession. If direct evidence is lacking, such religious practices are thought to have been significant at Palmyra (Kaizer 2002, 200–3). They

are reasonably to be inferred at Dura, which certainly partook of the wider regional tradition of 'cult standards' (Dirven 2005), objects which of their nature suggest use in processions, two of which are depicted in the hands of a priest on a relief recently found in a sanctuary in M5 (Leriche 1997c, 92–3, figs 22–3; Bounni 1997; Dirven 1999, 275–8, pl. X). In the Temple of Azzanathkona, room W7 had an altar and a hole in the floor like those in *sacellum* D5 which Hopkins suggested were for such religious standards (*PR* 5, 136, 145).

It was proposed above that, in late Parthian Dura, D St served as a processional way linking the plaza in front of the Temple of Bêl with the city centre. The Azzanathkona sanctuary boasted a closely similar spatial arrangement based on F St, running from Main St through the centre of the agora district to the temple approach, which is also proposed as a processional route (Pl. XXIV). To these we could add a possible third: the great H St, leading to the X7 'Dolicheneum', and past it to similarly terminate at its N end at another sanctuary, in X9, albeit requiring a detour around its S side to reach the entrance which, as there was a large altar before it, may like the Temples of Azzanathkona and Bêl have possessed a frontal plaza.

The religious processions inferred in late Parthian Dura may have simply looped around city centre streets, or visited major public buildings in the S, but some perhaps went further. We might imagine, for example, the arrival of Azzanathkona from her downstream home of Anath being periodically re-enacted by a procession of statues or cult-standards to and from the Euphrates with a triumphant culmination in the temple approach and sanctuary court.

All this has implications for what happened when the Roman military took over the N of the city. If the temples were generally preserved, what happened to worshipper access, and especially the inferred ceremonial routes and processions? A clear answer is apparently provided for the D St route towards the Temple of Bêl: it was completely blocked, by the camp wall (although see below, p. 290). However, the N part of H St, towards the X7 and X9 temples (if the latter still existed), remained open, albeit as the main axis into the N-most part of the military zone. What about F St, between the Azzanathkona temple approach and the agora district? Excavation of the F3 bath and amphitheatre complex involved digging in the adjacent F St, S of its 8th St junction where the S perimeter line of the base would have crossed it; however, no trace of any blocking wall or gate was detected. Other clues some distance to the N, however, suggest that the F St axis from agora to temple was indeed kept open in the military period—and was even monumentalized for processional purposes.

One of the more puzzling features of the military base is the ceremonial arch at the junction of F and 10th Sts. In itself, it is hardly surprising that such a monument (perhaps

occasioned by an imperial victory, or even visit to the city) should have been erected at the heart of this urban base, on what was the main route to and from the widened 10th St/*principia* complex. Yet its exact position is curious. Had it been simply a portal to the aggrandized centre of the base, it would best have been sited spanning F St just S of the junction, framing the expanding vista of the colonnaded space beyond. Alternatively, it could have been built on the axis of 10th St on the W side of the junction, or as a *quadrifrons* structure framing both axes. In practice, it was built on the axis of F St in a position which more than half-blocks access to 10th St, serving more to obscure sightlines W into the colonnaded area than to frame them. However, other details of its position suggest that the arch was not primarily intended to impress visitors to the *principia* zone at all. Instead, it seems designed to shepherd pedestrian traffic along F St *through* the heart of the military base, across 10th St and its N colonnade, onwards towards the N—and Azzanathkona's temple approach.

The curious siting of the F/10th St arch, then, is best explained in terms of monumental celebration, but also control and—most significantly here—facilitation of access, likely for religious processions, to and from the Temple of Azzanathkona through the heart of the military base. As we saw, similar access remained possible to the X7 and X9 temples, and although D St was definitively closed by the military, part of the function of the B St gate may have been controlled civil access to the Temple of Bêl along a modified route kept, like F St, at a distance from the *principia*.

To summarize, the spatial archaeology of the district under Roman military control is consistent with continued public access to the old temples marooned within the base area, as Stoll mooted (2001, 157). Doubtless this was closely regulated; however, it is proposed that at least on important festival dates the military authorities allowed civil worshippers to reach the normally sequestered sanctuaries, facilitating traditional processions, where possible along established routes, one of which was even monumentalized by the military. Further, the garrison likely participated in the rites.

The military authorities, then, appear to have gone to remarkable lengths to preserve as much of Dura's sacral landscape, and to maintain the city's established religious life, as was practicable. The garrison's treatment of Dura's sanctuaries was doubtless in part calculating and self-serving, but that does not necessarily also make it insincere. The case of the sanctuary largely overbuilt by the *principia* exemplifies the argument. This was almost certainly the 'temple of [i.e. partly built by] Epinicus and Alexander' which the Trajanic Roman occupiers had looted when they withdrew, bitter memories preserved in lapidary record and still living when Roman power was reasserted. The later Roman garrison, deciding it needed to demolish most of the same holy place, had a double motivation to compensate the deity, very publicly displaying reverence to the city's gods.

Provision of New Facilities for Civilians as well as Soldiers?

Another focus of interest is the F3 bathing facility, long constituting a projecting part of the base boundary closest to the agora, making it a potentially important locus of interaction between garrison and civil population—especially if it had indeed been established within a pre-existing civic facility, a *palaestra* perhaps accommodating a *gymnasion*. Further, similar piped water supply systems, novel at Dura, suggest that the F3 bath's elaborate hydraulic refurbishment was contemporaneous with construction (or rebuilding) of the baths built near the opposite ends of Main St in the civil town at C3 and M7, apparently elements of a single conception which, it was argued above, may date to the later second rather than early third century. There is no reason to think other than that these amenities were all created by the military; materials, methods, architecture, and water supplies originating inside the base all point to this. Access to the urban baths might, of course, always have been limited to soldiers and their dependants as Pollard argued (Pollard 2000, 52–3; 2004, 143). Downey also suggested they 'may have been built primarily for the use of members of the garrison' (Downey 1988, 169). However, Brown thought that M7 and C3 baths were not exclusively military (*PR* 6, 104), and indeed the distribution of these extensive facilities makes limited sense in terms of restricted military provision. It is especially noteworthy that the C3 bath, while now seen to be close to the SE limit of the base, was built right in the heart of the civil town almost literally in the shadow of the *Strategeion*, and was not only Dura's biggest Roman bath but also the most lavishly appointed, with elaborate floor mosaics paralleled only in the other urban bath in M7. Notably, the fourth major urban bath, in E3, the only one deep inside the base and so plausibly solely for military use, lacked mosaics. Such finery in M7 and especially C3 indicates prestigious urban amenities open to—and intended to please and impress—townsfolk as well as military community.

Construction of the C3 bath also involved another important measure: radical widening of the adjacent stretch of Lower Main St, virtually into a small plaza. There may have been a practical military imperative for this. Most of the traffic to and from the base, including columns of troops but also trains of pack animals and perhaps supply wagons, will have used the River Gate. However, Main St leading from it followed a tortuous route through the lower town, a bottleneck potentially creating traffic chaos. The bath-associated road widening created additional space around the junction leading into the base zone. However, the widening scheme was probably more than a traffic management measure. Extending past the bath to the space in front of the curious, elaborated entrance to an unidentified structure or facility (also military?) on the N side of Main

St (Fig. 7.1, entrance b), the road widening was perhaps roughly analogous to the elaboration of 10th St near the new *principia*, in that it may also have been intended to create a civic amenity: a public space in the middle of the old lower town, where none had previously existed in the warren of streets and lanes.

Another military facility which spatial arguments suggest was intended *ab initio* for shared military/civilian usage was the amphitheatre, built on the burnt-out ruins of the F3 bath. This was certainly relatively small although, as we have seen, it was not as small as has been thought, and anyway this does not mean it was insignificant, nor need it imply that it was solely for military use (Stoll 2001, 119). Had the Roman authorities wanted to create a larger one, since they opted to close G St anyway, they could also have requisitioned the whole of block F1 as well, and built a facility four times the size filling both blocks. That they did not do so might also be seen as a further example of concern to minimize disruption to the lives of townsfolk, and a policy of where practicable adapting existing sites and structures—here making the best possible use of the old F3 bath *palaestra* site which may already have been used for arena events.

After commissioning in 216, the new amphitheatre was doubtless controlled by the garrison, and used for closed military events. However, it succeeded the F3 bath as the part of the base perimeter closest to the agora. The only wide gate to the arena opened towards the agora, although perhaps simply because any vehicular traffic will have been coming from or going to the town gates, removing carcasses and debris or bringing in fresh sand. However, gladiatorial events, better known in the W, seem commonly to have involved opening ceremonial parades, which could only have entered Dura's arena with any order or dignity through the big E gate—i.e. from the direction of the agora rather than within the military base. Further, its reconstructed seating access arrangements also indicate that many spectators entered from the city side rather than the base interior. Again, these events might have been restricted to soldiers, their *familiae*, and perhaps veterans living out in the town. Nevertheless, the amphitheatre was dedicated in 216 in a city of Roman citizens which at some stage became a Roman *colonia*, and stood on the base-city boundary, with access along F and G Sts from the agora just to the S. It is reasonable to suggest that it was built *ab initio* to create a space allowing organized public contact between the military and civil communities with, for example, military-organized arena events being opened to civilians. Iconography indicates a taste for hunting game with horse and bow was shared by Durenese and soldiers, so it is easy to imagine that *venationes* in the amphitheatre would have appealed to both communities. There is no reason to think that the civil population would have been horrified by the military's introduction of gladiators either, since by the middle imperial period the citizens even of a bastion of Hellenism like Ephesus had taken to such

'sports' with gusto (Krinzinger 2002). Arena games, then, likely had mixed audiences (Stoll 2001, 116–18).

The amphitheatre perhaps additionally served more peaceable functions. The hypothetical religious processions along F St to and from the Temple of Azzanathkona would also have passed by the building; were they routed into the arena, pausing for public rites? The Ephesus processions outlined above visited the theatre. In the context of the first century, Tacitus reported the theatre at Antioch as the customary venue for the citizens to hold public deliberations (Tac. *Hist.* 2.80). In the absence of a theatre at Dura, might the military also have allowed the amphitheatre to be used for other civic gatherings?

Concordia, Colonnades, and Co-Prosperity?

The archaeology of Dura's military base, then, does not reflect simple arbitrary military expropriation and oppression of the local civil population, but rather indicates a measure of consideration for it. The cases of the F St arch (p. 91–92), the amphitheatre, and especially provision of showy urban baths indicate that the military authorities at Dura went beyond passive accommodation of civil concerns, such as respect for property boundaries in K5, and continued if regulated access to established temples, to active provision of infrastructure designed to serve the civil and military communities together. These appear to physically manifest a policy of fostering *concordia/homonoia* in the city, probably pursued by the military authorities at Dura from an early stage. This conclusion is actually in line with other information drawn from the textual sources.

Whatever the significance of the pre-Sasanian traces of military assault, which Leriche has taken to indicate armed Durenese resistance to the Roman takeover of 165 (p. 52), the epigraphic evidence clearly indicates that after annexation Dura was not treated as a conquered city, to be dealt with according to the unfettered whim of the military. This is apparent from survival into the Severan period of the ruling dynasty, the House of Lysias; the existing civic regime continued through the first half of the Roman era. To be sure, under imperial hegemony the city visibly altered its public aspect towards Roman provincial models, reflecting a wider process of change ultimately resulting in disappearance of the old dynasty, and establishment of a Roman-style constitution, although the chronology and the sequence of events remains obscure. The House of Lysias does not appear to have retained its grip on power much, if at all, beyond the reign of Severus; the only other current certainty is that by 254 Dura had been granted the status of Roman *colonia* (P. Dura 32). Whether this was granted only around that very late date (Leriche and El 'Ajjī 1999, 1334–5), or had been awarded decades earlier, remains unclear (p. 52).

Although by the third century increasingly debased by over-use, receiving colonial status from the emperor

undoubtedly remained a real public honour, as from an early stage was award of Roman citizenship to the local dynast who became Septimios Aurelios Lysias (*PR* 2, 148–51; Leriche and El ‘Ajjī 1999, 1326–7), doubtless all intended to boost Dura’s civic prestige. Indeed, Rostovtzeff himself saw matters in these terms: ‘Some of the emperors tried to compensate [Dura] for the heavy losses that the Roman conquest brought in its train, by the grant of honorific distinctions’ (Rostovtzeff 1938, 50).

The grant of colonial status was matched, and perhaps prefigured, on the ground by practical measures such as provisions of baths and an amphitheatre which, if hardly making up for loss of so much of the city interior to the garrison, nevertheless materially helped start Dura’s transition towards becoming a Roman provincial city. Taken together, these may be understood to represent a previously unappreciated pattern of imperial largesse directed at Dura—measures directly fostering *concordia* and integration, in line with the arguments of Stoll and Reeves.

Nevertheless, Rostovtzeff regarded imperial gestures such as colonial status as empty propaganda, futile in the face of, in his view, the catastrophic reality on the ground of streets swarming with thuggish soldiers. His portrayal only really considered the old Durene elite, whom he envisioned facing financial ruin in the face of military exactions; he apparently envisioned a bitterly ironic situation of a grandiose public facade portraying a prestigious Roman colony, while in reality the proud former Greek *polis* was reduced to a semi-ruinous village, its shrinking and impoverished population brutalized by arrogant *milites*. However, at the time he wrote it was already clear to other members of the expedition, and subsequently to new generations of investigators, that there were some other archaeologically observed phenomena in the civil town contemporary with the base which challenged Rostovtzeff’s dystopian vision of the reality on Dura’s streets.

In particular, new colonnades began to adorn the civil district, in the agora and along Main St which, at its junction with H St, also acquired an inscribed arch of Roman date (*PR* 4, 72–4; *PR* 9.1, 61–2; Leriche 2004, 154). Brown saw these innovations as Roman-inspired, noting use of the Roman foot in layout (*PR* 9.1, 60–4). The significance of this ‘colonization’ is disputed. Leriche acknowledged that it was in process in the third century but, presumably because (in contrast to the unified military scheme on 10th St) it was being conducted piecemeal rather than comprising a grand unified civic project, cautioned that ‘There was no attempt, for example, to turn Dura into a city with colonnaded streets like those of other cities of Roman Syria and Jordan, such as Apamea, Palmyra and Gerasa’, and otherwise saw little ‘Roman’ influence (Leriche 2004, 157–8; although see also Leriche et al. 2011, 27). Ball had more generally argued that colonnades in the East reflect continuation of indigenous customs and have nothing to do with ‘Romanization’ (Ball

2000, 261–72). In this he may be literally right, in that urban colonnades were not specifically ‘Roman’ in any strict sense, but in their Greek style had become part of the architectural language of urban pretension in Rome’s E provinces where Hellenistic culture remained dominant. (Burns 2017) Appearance of street colonnades in Dura once it became politically integrated into the Roman East is not a coincidence. It is suggested that the colonnades fronting L4 and L2 on Main St, at least, may have been built by the garrison as part of military or shared military/civilian warehousing, workshop, and/or trading facilities created in L4 (p. 266).

‘Colonnadization’ is an architectural indicator that the city had moved onto a trajectory converging on Roman provincial norms in fabric as well as constitution; and its piecemeal construction indicates that it was not funded by imperial largesse (as the urban baths appear to have been); rather under Roman rule the civic community was prosperous enough to fund some development for itself. This is confirmed by the fragmentary inscription found in Main St (*PR* 4, 72–4, no. 169; Downey 1988, 170). Dated to 231 or 245, it was set up by a Durene ‘high priest’, whose name is weathered but was probably Antigonos. This inscription almost certainly fell from a ceremonial arch across Main St on the E side of its major junction with H St (*PR* 9.1, 61–2). An MFSED *sondage* confirmed the arch was a late construction (Leriche 2004, 154–6). Men like this high priest may also have been responsible for third-century refurbishment of temples in the civil town, of which there is some evidence: e.g. the Temple of Atargatis was paved in fired Roman brick (*PR* 3, 10).

Such developments suggest that there was indeed real economic, cultural, and political substance to Dura’s shift to a new Roman provincial path, on which, *contra* Rostovtzeff, the city was apparently prospering. At the same time, we could not reasonably expect this process to have got very far, as Dura came very late to the provincial fold; western Syrian cities had had a 150-year head-start on civic aggrandizement. There was relatively little time for prominent Durenese to develop the desire and accumulate the resources for the competitive civic euergetism through lavish expenditure on urban infrastructure which drove development of so many cities across the Greco-Roman Mediterranean during the era (p. 302). Anyway, during the third century this mechanism was rapidly waning across the empire, while political-military circumstances would violently curtail Dura’s own development.

Direct imperial gestures and material military help with urban development aside, the presumed major source of Dura’s apparent civic prosperity in the third century was what amounted to a standing, indirect state subsidy: the regular pay of the soldiers, being largely spent in the city, and probably other state expenditure on local purchase of military supplies and materials (Ruffing 2007, 406). Although much was doubtless clawed back in imperial taxes, with such

a proportionately large garrison, it is likely that there was a substantial net inflow of imperial coin to the city. This would make the soldiers, as well as the emperor, *de facto* benefactors of the city.

Probably the most visible, explicit, and symbolic arena of military–civilian interaction at Dura was public ceremonial, always more or less religious and political. We have already seen evidence for the garrison’s facilitation of civic religious events. There is some documentation from elsewhere in the Roman East for military personnel going further, and actively participating in local civilian festivals (Stoll 2001, 433). Even more, there is good reason to envisage formal joint ceremonies and celebrations at Dura. Rostovtzeff envisaged little or no civic engagement with the military and imperial cult of the base (Rostovtzeff 1938, 61), yet participation in imperial cult, e.g. taking of oaths of allegiance, and religious rites and celebrations on accession anniversaries, was required both of soldiers and civilians (Pliny, *Letters* 10.52). Joint cult events (Haynes 2013, 212) probably took place in shared public spaces, civic or military (Stoll 2001, 419, 432). An apparent example was recorded at Elephantine in Egypt in 232, when officers from the nearby garrison at Syene joined civic officials for ceremonies to celebrate the birthday of Severus Alexander, possibly in a military shrine, followed by feasting at the local *Caesareum* (Haynes 2013, 211). At Dura we may envisage sacrifices and acclamations jointly staged by the garrison and civic authorities in the amphitheatre, on the *campus*, or, during visits by important dignitaries like the provincial governor, in the outer court of the Roman Palace. Routinely joint military–civil performance of imperial cult could explain why it is not apparent in the civil town at Dura: perhaps *imagines* in the custodianship of the garrison, housed in the *aedes* of the *principia* with the military standards (Acqua 2016, 147–8), also served as the city’s imperial cult objects, paraded through the streets by the soldiers to public ceremonies on the appointed days. This would indeed represent not just Stoll’s symbiosis of garrison and city, but a visible symbol of integration.

Archaeological testimony from the base area and other military-built infrastructure in the city, then, and wider changes in Dura’s urban fabric under Roman rule, resonates strongly with Stoll’s arguments, based primarily on textual evidence, for the nature of military–civil relations in Roman Syria: it all reflects known imperial policy of promoting *concordia/homonoia*, which led to significant integration between garrisons and host communities. It appears to provide significant independent vindication of Stoll’s thesis, and of the similar views of others like Reeve, and Sommer and Ruffing, who envisaged the city enjoying military-subsidized economic prosperity. At the same time, this sunny picture would seem to definitively discredit the dystopian gloom of Rostovtzeff and Welles, detailed study of the evidence triumphing over the excessively hasty and/or prejudiced interpretations of the mid-twentieth century. Or does it?

As we saw, for the city there was also a price to pay. Not least, loss of control of the city’s own gates and perimeter, and of at least a quarter of its area, cannot have been wholeheartedly welcomed or perceived as comfortable by Dura’s inhabitants. If establishing the military presence was not the result of a single major traumatic event in the early third century as has been believed, then even with an entirely violence-free Roman take-over, externally imposed change from largely autonomous city-state of the Arsacid empire to Roman imperial garrison town can hardly have been a stress-free experience, especially for those obliged to pack up their possessions and leave their homes, even if they departed with the consolation of purses of Roman coin at their belts. If on aggregate life in Roman Dura did see imperial policy deliver increasing shared prosperity of both military and civil communities in which some did very well, the reality for many individuals and some social groups may have been more like the experience of many involuntary ‘partners’ in imperial Japan’s ‘Greater East Asia Co-Prosperity Sphere’ of 1930–45 (Lebra 1975): empty rhetoric, exploitation, or worse.

SHADES OF LIGHT AND DARK

The archaeology of the Roman military presence, then, appears to attest both dark and light visions, of military domination of urban life, but also active pursuit of *concordia/homonoia*. In practice, impact of the Roman garrison was too complex to be usefully captured by either vision on its own. A more realistic visualization of Roman-era Dura has to encompass all the apparently conflicting evidence in terms of the known, or reasonably inferred, dynamics between the interacting groups and institutions.

To sketch the outlines of a new picture we need to zoom back out from the micro-scale of the specific lines of walls and positions of structures within Dura’s urban fabric, to review its broader context, of a city brought into the orbit of Roman Syria; and to consider this in the light of wider recent scholarship, in terms both of general theoretical approaches to past societies, and the specifics of social and cultural trends, and political dynamics, of the middle Roman empire.

One reason that it has been possible for the same evidence to generate completely contradictory images of Dura is that many existing accounts are literally partial, i.e. not effectively considering all the data. This has largely arisen because the evidence remains inadequately published, something widely acknowledged to be true of the textual data, especially the inscriptions. While relatively abundant and dazzlingly detailed, Dura’s body of texts is nevertheless still in absolute terms a tiny and unrepresentative sample of what once existed, a record full of huge holes, and therefore amenable to conflicting readings. Equally importantly, the archaeological evidence was never studied or even made available in sufficient detail—providing the rationale for the present volume.

On the other hand, were complete access to all the evidence for Dura to become a reality, it is anyway impossible for any single scholar to master it all, and its wider context, in depth. Even the great Rostovtzeff struggled in the 1930s, since when there have been explosions in the sheer quantity of new data for the Roman world, and equally of scholarly discourse on it. Hence study of a site like Dura must always be a team effort, in which at best each of us may address a few aspects. So, to offer any broad overview, we have to take others' expert opinions on a degree of trust, albeit inevitably reinterpreting them through our own critical filter.

It is both a problem and a potential strength that, in viewing Dura, each of us brings our own individual scholarly perspective, which is inevitably coloured by our presuppositions, and sometimes more or less unconscious projection of prejudices. To us today this is especially, indeed uncomfortably obvious in the mid-twentieth-century class and racial prejudices manifest in the writings of Rostovtzeff and Welles. It is of course impossible to entirely escape the mindset and assumptions which make us, but a key lesson of recent decades of archaeological discourse is that we can and should seek to be self-aware in these regards, in this case to try to avoid simply replacing the distorting filter of 1930s–1940s class- and racial prejudices with early twenty-first-century equivalents. That we should at least be aware of, and try to be overt about, why we see the past in the terms that we do, is a lesson of the post-processual archaeology which emerged in the 1980s. This was itself one facet of far wider changes, especially in the Anglophone archaeology which forms my own background. Initially prehistorians, subsequently followed by many Roman specialists, sought to draw on developments in cognate disciplines, notably anthropology and sociology, to overhaul both their body of theory and their methods. Openness to ideas from other social sciences in turn led to powerful influences from post-colonial studies, working on receptive new generations of scholars growing up in a world characterized by the dismantling of European empires, and far greater exposure to other, different cultures, while living through wider global cultural changes, perhaps above all female emancipation and the development of feminist perspectives.

To consider data-sets like that from Dura, all this has provided a range of new theoretical and ideological scholarly vantage points far wider, and better founded, than those available in the 1930–1950s. The latter tended to be uncritically admiring of Hellenistic and Roman imperialisms, and interested only in elites—or at least, simply accepted their perspectives, as some still tend to do. The current generation of participating Dura scholars are also of significantly more diverse social backgrounds and political outlooks than in the 1930s; to be sure, while Dura studies have always been international, the subfield remains dominated by white westerners, although it now includes French-trained scholars from Syria and Lebanon, and there is a far higher percentage, perhaps a majority, of women. The fact that scholarship now

spans a wide spectrum of approaches, some ideologically opposed to one other, at worst risks fragmentation into rival academic tribes which ignore each other, but at best provides a richer environment within which to develop, debate, and trial ideas.

The current state of scholarship, then, permits—really, demands—a more holistic approach to cases such as Dura, as far as practicable keeping all social groups in view. These developments make some older academic positions barely tenable, notably uncritical admiration for e.g. Hellenistic or Roman imperialisms, as largely dependent on undue identification with the viewpoint of privileged male elites, such as Dura's 'Greek' *Europaioi*, to the exclusion of almost all else. Indeed, in general, we should be wary of a tendency to identify unduly with the perspectives and interests of *any* particular group. If naïve post-colonialism led to over-identification with Rome's subjects, i.e. the mass of Dura's subordinated Syrians, it would simply invert the received elitist perspective. Simply to become a partisan of the Roman garrison community would obviously be equally unjustifiable.

In studying Roman Dura it is, then, important to seek not to be partisan, and to critique Rostovtzeff's identification with the *Europaioi*, Stoll's apparent admiration for the Roman military, but equally to resist simplistic identification with the oppressed Syrian majority. With regard to my own position, I have elsewhere explained my motivations for studying the Roman military, and for my ambivalent view of it (James 2011a, 6–11), which brought me to the present project. Here I am aspiring to a gentle, even-handed misanthropy, in which it is envisaged that all parties might exhibit noble or base motives, and according to circumstance be capable of benevolence or violence—especially when caught up in huge conflicts between major military powers. This is a philosophical approach to humanity best captured, not in any work of sociological theory of which I am aware, but in the *Discworld* novels of Terry Pratchett (e.g. 1997).

The issue of violence constitutes another danger inherent in much modern scholarship. i.e. 'pacification of the past': writing social conflict and violence out of historical discourse, much more by silence than reasoned argument. This tendency has characterized much recent discourse on human history among post-World War II generations of scholars, and is best documented among prehistoric archaeologists (Keeley 1996; James 2007a), but is also manifest in much classical archaeology. Indeed it was already endemic in those received admiring views of Greek and Roman civilization which averted their gaze from the horrors of war to focus on the peaceful achievements of classical urban civilization. Discourse on Roman Dura, at least prior to the war-torn 250s, has also been subject to 'pacification'. While the Yale expedition saw Dura's Roman period as characterized by military oppression disrupting life in an island of peaceful Hellenism (so a time of great stress), recent accounts, including those

considering the military presence, have generally ignored or played down the question of social conflict within Dura before its final violent death.

Indeed Pierre Leriche has actively denied the existence of significant internal conflict in multi-ethnic, multi-lingual, polytheistic Dura, at least until the garrison arrived, writing of 'this prosperous city, whose various communities lived in harmony' (Leriche and Al Saleh 2011, 17; see also Leriche 2016, 181 and n. 39). However, the supposed lack of conflict within civil Dura could be a classic case of absence of evidence not being evidence of absence. For, within the archaeological record we have, what testimony would we expect to find of internal strife at Dura, even explosions of intercommunal or sectarian violence? Given its fragmentary and selective nature, what, if anything, might there be in the textual record? Here is a general theoretical and methodological issue, which we can address by drawing on wider modern cross-period research.

In terms of material evidence, recent studies suggest that we would be lucky to find any trace even of high levels of intercommunal violence, which tends to be episodic and with any trace quickly removed. The least ambiguous evidence would comprise skeletal trauma, but from Dura we have no bodies to study (those recovered from necropolis and siege deposits were not kept); and even if we had, the stigmata even of much lethal violence can be subtle to the point of invisibility: e.g. even fatal sharp-force trauma to femoral artery, abdomen, thorax, or throat need leave no trace on bones (Knüsel 2005; James 2010). Only the most extreme cases of conflict may still be evident, where the usual processes of erasure did not apply. Here Dura has supplied some of the most dramatic archaeological testimony for interpersonal violence ever found, from the final siege of the city, namely the dead sealed in the Roman countermine within the rampart at Tower 19 (James 2011b), and the bodies found on the floor of block E8 (p. 138); while the skeletons themselves do not survive for analysis, their archaeological contexts tell their own stories of violent death.

From our wider knowledge of the nature of archaeological processes, then, we would not expect to find much, if any, material trace of social conflict at Dura, even if this had been simmering and sometimes violent. From our understanding of the extent and nature of the textual record, we would not necessarily expect traces in that either – although in fact there is at least one, albeit relating to the military: an incident of mass straggling indicating a collapse of discipline in *cohors XX Palmyrenorum* (*P. Dura* 55A). In the case of Dura, then, shortage of evidence for social conflict really cannot be claimed as evidence of absence.

Indeed, even as Leriche's portrait of a harmonious Durene polity was being published in 2011, the slide into ferocious civil war made it starkly evident that modern multi-faith, multi-ethnic Syria offered no model of contented, mutual toleration. Rather it proved to be a pressure cooker of

suppressed intercommunal tensions, which erupted when the autocratic regime forcibly holding things together showed signs of cracking. Yet perhaps the recent traumatic events in Syria, in which internal tensions have been influenced and manipulated by powerful external forces, offer alternative insights into the social dynamics of Arsacid- and Roman-era Dura. For, even in later Arsacid times, the proximity of the Roman empire and the impact of increasing Roman expansionism from the reign of Trajan, provide reasons to think that Dura in the first and second centuries AD, as a formally Greek city-state within the Arsacid empire, would not always have been the happy and harmonious place portrayed by Leriche.

Europaioi and Durenes: A Complex Community, under Stress

While we have little specific information regarding the internal dynamics of Dura-Europos in the later Arsacid period, much may reasonably be inferred from our knowledge of patterns characterizing the wider Hellenized world of city-states, spanning both the Roman and Arsacid empires, of which Dura was a part. Each city's dynamics were unique, certainly, but as the interconnected building-blocks of that world, they appear to have shared a number of fundamental characteristics which are likely to have operated at Dura.

Emerging over the preceding millennium, all these ancient polities, including Greek democracies, exhibited by our standards stark asymmetries of internal power, of the old over the young, of males over females, of landowning elites over the bulk of the free population, and not least of free over unfree. Internal order was maintained by religious and, under emergent empires, royal ideology, and by the law ultimately backed by threat of lethal violence. However, on a day-to-day basis all levels of society operated by the vertical bonds of patronage, which offered social subordinates the favour and protection of the powerful in an uncertain world, in return for services and forming part of their clientele, a key source of public prestige. Perhaps equally important were horizontal links of alliance between urban aristocrats, both with their peers at home and with useful friends in other cities, and between city regimes, further sources of prestige and honour, political and diplomatic networks which formed the basis of leagues of city states, and then of empires.

Patronage and alliances, then, between individuals, families, and city-states, provided the glues binding societies together. But competition for honour and power inevitably meant rivalry within social elites, while inherent conflicts of interest between elites and social subordinates could not always be kept in bounds through patronage or oppression. Strife could develop between factions within urban elites, or between excessively oppressive elites and subaltern groups, leading to *stasis*: political crisis, perhaps violence on the

streets, with coups, popular risings, even civil war. *Stasis* was a standing danger in Greek and other city states, in the Mediterranean world and Asia. Instances are attested in Dura's peer Greek cities within the Arsacid empire, including Seleucia on the Tigris (Tac. *Ann.* 6.42; Gregoratti 2016, 22–3).

Against this background, what is the most likely situation in Arsacid Dura? The city's demographic structure was complex, apparently unusually so; its twin names reflect profound distinctions, and potential fault lines, going back to its early development. It remains generally agreed that the polity was dominated by a privileged class of families who styled themselves *Europaioi*, and whose privileged position was ideologically justified by their claimed descent from the Macedonian and Greek founders of the colony. It is less important how literally true this may have been, and how far it had become an 'invented tradition' (Hobsbawm and Ranger 1983), perhaps with occasional new families acceptable to the elite conveniently announcing Hellenic genealogies (for the possible dynamic, see Pollard 2007; Andrade 2013, 211–17). The main point is that, while the community had a Greek constitutional form, it seems never to have fully developed all the features of a 'normal' Greek *polis*. It was apparently always dominated by an effectively closed, self-perpetuating oligarchy which asserted its distinction from the majority of the urban and regional population through at least a facade of Hellenism—even though these *Europaioi* could have Semitic as well as Greek names, and were probably all bilingual, also speaking Aramaic dialect (possibly what is now labelled 'Palmyrenean', which may actually have been a wider regional dialect: Kaizer 2017, 87). As we saw (p. 50), Dura was governed by a chief magistrate, *strategos*, who in later Arsacid times was also entrusted with the office of *epistates*, or royal superintendent, an old Seleucid title. The *strategos* was not elected: most incumbents actually held, at the pleasure of the King of Kings and apparently indefinitely, the combined office of *strategos kai epistates*. This title became, in practice, the prerogative of a hereditary dynasty drawn from the so-called House of Lysias, one of the elite families of *Europaioi*. Given the Lysiads' monopoly of executive power thanks to their link with the Arsacid regime, how united were the rest of the *Europaioi* amongst themselves? Were all content to play permanent second fiddle to the ruling house?

This Seleucid-derived, Arsacid-modified power structure dominated the Semitic-speaking majority in town and country, politically and economically. However, the rest of the urban population was itself internally complex, and further strongly stratified; as was normal for the era, an unknown proportion were slaves, so legally treated as property. The free, but effectively disenfranchised, presumed majority of the urban population will have included a range of statuses, from the very poor through to more or less prosperous artisans, to perhaps even very wealthy individuals nevertheless excluded from the charmed circle of *Europaioi*, maybe

because their families were relatively recent arrivals. Many families had doubtless arrived from the city's own territory, and were legally regarded as 'of Dura'. However, its religious cults also indicate the presence of enclaves from other communities in Dura's orbit, notably the major village or small town of Anath down the Euphrates. It is unclear how long and how far such groups of incomers retained their distinctiveness as resident 'expatriates', or had integrated as 'Durenes' before Roman times. Were all these groups, presumed to have formed the majority of Dura's population, always docile subjects of the Lysiads and *Europaioi*? Perhaps, as in the Syria of the Assads before 2011, Dura's regime and urban elite were able to maintain their power without serious challenge most of the time, through monopolizing judicial authority and armed force. Confirmation, if it is really needed, that all in Arsacid Dura was not sweetness and light is indicated by the body of a man, found in the Citadel and apparently of pre-Roman date, buried with a noose still around his neck (Fig. 14.1; *PR* 2, 13, 56–7).



Fig. 14.1. Skeleton of an adult male found buried in the NW tower of the Citadel, probably in the pre-Roman era. Apparently an execution victim, he still had a noose around his neck.

However, in 2011 people began to openly challenge the Assad regime as a result of external factors: the so-called 'Arab Spring' caused the start of a revolt against the Ba'athist regime, and led to a civil war which was swiftly exacerbated by Anglo-American-induced chaos in Iraq and the opportunism of other states and foreign terrorist groups—or so the situation appears to me in 2018. Dura was exposed to comparable external factors and processes, being politically networked into not only the Arsacid empire, but also into the looming proximity of the Roman world. While the city benefitted economically from the prosperity of Syria under the *pax Romana*, as finds of e.g. first-century Antiochene glassware and coins indicate (Sartre 2005, 194), from early in the second century imperial relations became increasingly antagonistic.

Above all there was, from the first century BC, an important presence at Dura of people from the city's most important neighbour and presumed trading partner: Palmyra. The Palmyrene connection to the W and so to the Roman world, and the link between the ruling House of Lysias and the Arsacid regime, emphasize that society at Dura around, say, AD 100 was at the same time internally very complex—perhaps exceptionally so—and also enmeshed in regional and supra-regional social, economic, and political networks.

What are the likely implications of all this? At best, Dura may indeed have been a peaceful city, but one with deep internal fault lines which might open in times of stress. And in the second century AD, the city was subjected to massive stresses. Especially during the two generations preceding establishment of the Roman garrison, Dura was increasingly caught in the crossfire, metaphorical and on occasion almost literal, of Roman-Arsacid confrontation. The Trajanic military occupation of the city, brief though it was, constituted a crisis for the city's population, not least for those holding power, as they had to decide how to respond to a sudden change of imperial *hegemon*—and then equally swift and unexpected Roman withdrawal, leaving them, it seems, to have to rebuild bridges with the Arsacids. So during the middle decades of the second century, as Dura was increasingly torn between the competing gravitational fields of two vast empires, what cracks may have started to open in its social and political fabric?

When Dura passed definitively into the Roman orbit in the later 160s, the powerful had once again to renegotiate their relations with another imperial regime, suggesting a further period of uncertainty and potential social instability. It was into this situation that the Roman military presence intruded, and became a factor.

THE COMING OF ROME

As we saw, hitherto the impact of Rome has generally been seen as initially very limited, apparently only becoming detectable from Severan times, with the supposed arrival of

the major garrison and creation of the military base c.210. But the coming of the garrison was actually a very different story, and, will be argued, was both the least of Dura's troubles and in some ways may indeed have offered a valuable boost to the city in ways hitherto unrecognized.

The new garrison/base chronology also has major implications for the broader consequences of annexation by the Roman empire, largely represented on Dura's streets by the military. Not least, it implies major direct Roman impact on the city a generation, perhaps two generations earlier than has been assumed, with much longer for the ensuing dynamics to play out. Further, reconceptualizing the Roman military presence as not just garrison, but also extended military community, means that those dynamics were distinctly different in kind from those previously assumed.

Impact of Base Creation: Major Trauma or Least of Dura's Troubles?

As creating the military base clearly had a massive physical impact on the urban landscape, an equivalent, deeply traumatic effect has been inferred for the urban population, especially of course those dwelling in the affected areas at the time(s) the soldiers moved in. The military takeover has been seen in terms of unilateral requisition and eviction, which conjures images of dispossessed refugees streaming out of the northern quarter carrying their worldly goods, encouraged on their way by the cudgels and boots of the soldiers, seeking shelter elsewhere in town or fleeing Dura entirely. It is a picture of a social earthquake, comparable to the actual seismic shock of 160. However, as we have seen, there are archaeological grounds for questioning whether partial military takeover, while doubtless a unilateral imperial decision against which there was no appeal, occurred in so brutal a fashion.

To begin with, the 210s building programme looks to have been just one of several steps in an incremental military takeover and makeover of part of the city, episodes spaced out over almost half century. Nevertheless, net impact on the city could still have been very harmful, perhaps analogous to gradual growth of a tumour rather than an earthquake.

Yet paradoxically, other disruptive events around the time of the Roman annexation may have served to make the subsequent military appropriations less traumatic than hitherto thought, both relatively and absolutely. The earthquake of 160 may have inflicted significant casualties, perhaps also leaving many buildings still uninhabitable and vacant on Roman takeover. This was then soon followed by metaphorical political and perhaps demographic earthquakes. While the Roman takeover of c.165 apparently saw no sack or slaughter but rather peaceful continuity of the existing order, it was undoubtedly a major political upheaval, and it has been suggested that some fled the city to Parthian protection rather than live under Rome (Welles 1951, 273; Dabrowa 1981, 73).

Whether this was so or not, Roman annexation of Dura was almost immediately followed by the apparently devastating Antonine Plague rampaging across the empire from Babylonia (p. 52). Its devastating passage could also have reduced the civil population significantly, even drastically.

Grim though they would have been, potential flight of Romanophobic segments of the population, rapidly followed by a devastating epidemic, would paradoxically have made reorganizing civil occupation to accommodate soldiers easier and less disruptive to the remaining population than the Yale team thought; at least, it represents a very different kind of impact on the polity. In addition to extensive unoccupied ground inside the walls (Rostovtzeff 1938, 55), a substantial proportion of the urban housing stock may already have been vacant or derelict as, over subsequent decades, the Roman garrison grew. Further, to a civil community perhaps reeling from events which devastated both population and economy, arrival of a Roman force with money in its purses may have been seen at least by some as providing a welcome new captive market as much as an alien imposition. Nonetheless, at each stage of growth of the base, civilian households would still inevitably have been displaced from their established dwellings (Baird 2012a, 42). How was this effected? Were these families indeed simply told to get out, at sword's point if necessary? The evidence from block K5 cited above suggests compulsory purchases rather than uncompensated expropriations. Creating the military quarter was doubtless an unpleasant, unpopular, and stressful process but, apparently incremental over decades, was very far from Rostovtzeff's single traumatic episode.

But what kind of sociopolitical presence did the garrison evolve into?

IMPERIAL GARRISON—OR CITY WITHIN A CITY?

If Dura is today understood to have been an exceptionally complex society of multiple cultures, languages, and ethnicities, conversely the Roman military presence has almost always been seen as essentially monolithic: an instrument of state power comprising professional soldiers. The imperial military presence was self-evidently very different from the host *polis* of Dura in its specific composition and internal dynamics. However, there is now also good reason to believe that in several fundamental respects it also resembled the civil community far more closely than has been appreciated, with major implications for the nature of developing interactions between them.

The Imperial Garrison: A Monolith?

In their publications, members of the Yale expedition team seem to have followed the widespread habit of thinking of

Roman *milites* simply as instruments of state power, the resident representatives of which were now the garrison officers: auxiliary tribunes or prefects, legionary centurion *praepositi*, or later, supposedly, the *dux ripae*. It was thus recognized that there were now two parallel official power structures within the city. But beyond this, the military presence has generally been treated as a monolith. Rostovtzeff's image of soldiers abusing the legal authority provided by their status, to act in their own private interests and to exploit and abuse Durenes, at least acknowledged some agency among ordinary *milites*. However, while the military composition and official organization of the garrison has been examined in detail along with something of their routines and operation, very little further attention was paid to the implications of the fact that henceforth the walls were shared, not simply by a provincial *polis* and detachments of the imperial military, but by two substantial human populations. Above all, Dura scholarship has not fully appreciated that the *milites* formed the core of a second, fully fledged, autonomous, separately governed social community in the city—one which likely exhibited comparable internal complexity and segmentation resulting in fault-lines, dynamics, and tensions comparable to those hypothesized for the civil community.

The Fractious Brotherhood of the Soldiers

Roman armies were famed—or notorious—for the intensity of their training and the brutality of their military discipline. However, this system did not produce unthinkingly obedient *milites* and was never intended to. Imperial soldiers never forgot that they were Roman citizens, or were men on the way to becoming so. They were proud, self-aware human agents who had a touchy sense of their own group identity, social worth, and potential power—especially touchy, as they were free, privileged males who, exceptionally, were liable to corporal punishment from centurions which, coming from anyone else, would elicit a violent response in defence of personal honour. With the right to bear arms on the streets, they were encouraged to see themselves as members of the empire-wide imagined community of *milites*, men who were now the guardians of Rome's glorious martial history and traditions (James 1999b). They were united as *commilitones*, 'fellow soldiers', brothers-in-arms in service of the emperor who, by the late second century, was himself expected to play the part of *commilito*, as well as commander, patron, and paymaster.

Rome's training and disciplinary regime did not seek to crush or even limit the soldiers' aspiration to establish their martial *virtus* ('[real] manliness'), comprising a strong capacity for lethal violence: it was designed to foster it, but equally to harness and direct its dangerous energies, through literally making a cult of *Disciplina* as a counterbalance, at least among some of the provincial armies (Haynes 2013, 205).

Exceptional more-or-less controlled ferocity was the basis of Roman military success. As much as by training and discipline, Roman military culture was characterized by the competitiveness for honour which was a feature of Roman society, taken to extremes (Lendon 1997: on the military, 237–66). Individual soldiers, regiments, and armies vied with each other to display *virtus* and to win *honor* and *laus* (honour and renown). These brought prestige, advancement, and material reward. Accepted, fostered, and shared by Roman commanders, competitiveness resulted in soldiers' behaviour which would astonish and dismay any modern military officer. It sanctioned acts of suicidal individual courage on the battlefield, and also encouraged swaggering arrogance off it, which too easily spilled over into unsanctioned violence. Soldiers' arrogant self-belief became inflated to unprecedented heights during the life of Dura's garrison, especially with the indulgence of the military autocrat Septimius Severus, who was notoriously reputed to have advised his sons to 'enrich the soldiers, and scorn all others' (Cassius Dio 77.15). There was, inevitably, a down side to this, for everyone concerned.

Inter-unit rivalries—between legions, and between auxiliaries and legionaries—could occasionally erupt into lethal internecine violence (Lendon 1997, 250). At the largest scale, there were mutual antagonisms between army groups, fault lines which, especially in the middle empire, episodically yawned into the chasms of civil war. In general, the ability of commanders to retain control of their unruly men was often fragile, and never more so than in the third century AD when the *milites* were developing the habit of assassinating emperors, and becoming increasingly inclined to act like mercenaries for any imperial claimant with enough gold.

The implications for Dura of the dynamics of wider contemporary military culture may be imagined. In the third century, the city was home to contingents of both *auxilia* and legionaries, living cheek by jowl. Prolonged shared service in the region, and other factors like common religious piety, reflected in the graffiti left by both in the Mithraeum some shared, doubtless fostered bonds of comradeship between individual auxiliaries and legionaries which counteracted unit rivalry. However, initially at least, friction is likely, perhaps with ethnic undertones, between the men of *cohors XX Palmyrenorum* largely recruited from the pastoral peoples of the territories of the regiment's mother city and other 'steppe Syrians', and the legionaries probably mostly drawn from their home-base communities and other cities and farming populations of northern Syria. The potential risks of trouble between contingents is a plausible explanation for the division of the base into separate compounds.

There were equally hazardous standing tensions between the ordinary *milites* whose received culture encouraged them to be vociferous and headstrong, and the officers who sought to control them. Military base walls in general, and Dura's camp wall in particular, may have been about keeping

soldiers in as much as keeping anyone else out (James 2011a, 174). Control over the soldiers could become especially tenuous in times of dynastic uncertainty when imperial authority could be perceived to be weak. This is directly attested at Dura, in a document revealing a serious failure of regimental discipline in *cohors XX Palmyrenorum* when apparently large numbers of its men had left their posts without permission (*P. Dura* 55A, AD 218–22)—in modern terms 'straggling' or 'going AWOL' *en masse*, if not actually deserting. In times of civil war or foreign invasion, discipline could collapse completely. Dio's *History* ends with the year 229 with comments on the catastrophic demoralization and disaffection among the troops of Mesopotamia facing the new Sasanian empire. This he blamed on 'luxury, licence, and ill discipline', resulting in them murdering their commander, the governor Flavius Heracleo, with some even defecting to the enemy (Cassius Dio 85.3.4; Millar 1993, 147). Standing anxieties about the risks of mutiny may explain the apparent progressive tightening of internal security in both the House of the Prefect and the Roman Palace. The Sasanians apparently sudden acquisition of advanced poliorcetic skills, perhaps at Hatra and certainly displayed at Dura itself, is partly explicable through employment of defectors from the Roman military. Rostovtzeff was certainly right at least about the *potential* threat posed to Durene civilians—and indeed their own officers, and each other—by the soldiers. *Milites* were dangerous beings.

The Imperial Military Presence: A Second Complex Community

At Dura, as we have seen, we are dealing not simply with substantial contingents of soldiers, but a hitherto barely recognized extended military community also comprising soldiers' servants and families. This was a microcosm of Roman society: it was of course highly stratified, from representatives of the equestrian order to the servile, and until 212 a mixture of Roman citizens and provincials. Like Rome itself it was articulated around a hierarchy of privileged males, but one organized for war, so led by officers instead of magistrates: tribunes and senior centurions wielded power over lesser officers, privileged groups like clerks, standard-bearers, and priests, and the mass of (largely young) ordinary soldiers. The institutional structure of the garrison probably owned or employed groups of non-soldiers, such as *lixae* and an attested troupe of entertainers and prostitutes. However, the *milites* themselves, of all ranks, were also heads of their own households, of wives, children, and other blood relatives, plus military and domestic servants, of slave, freed, or free status.

Dura's extended military community was, then, drawn from a wide range of classes and ethnic backgrounds, from thoroughly Hellenized (probably Syro-) Roman aristocrats

like Terentius to Palmyrene dromedary-riders, locally wooded soldiers' wives, and doubtless polyglot slaves. Taking its structure from the military formations to which it was attached, this large train of dependants will also have been segmented and hierarchical. Individual families will have taken their social place and sense of identity from the rank and status of their soldier *paterfamilias*. This will have formed the basis for social interactions within the wider garrison community, and between military-associated and civilian townsfolk. Trouble breaking out among the soldiers is likely to have been echoed by their partisan servants and families; conversely, disputes and problems arising among the dependants will have prompted reaction from their soldier patrons.

A City within a City

Dura's extended military community was, then, as diverse and complex in composition as the civil city itself. It comprised a spectrum of age, gender, rank, status, profession, ethnicity, and religious confession just as great as that of the civilian population. It will also have been prone to internal tensions.

Literally through occupying a large part of the urban landscape, but also in composition, nature, and functions, the soldiers and their dependants comprised another urban community at Dura. To be sure it was a peculiar one as its *raison d'être* was imperial service, and economically it was primarily sustained not from farming the adjacent lands but through imperial tax revenues mostly raised elsewhere. Yet the military district, like the civil town, had installations of governance and law, administration and record-keeping, maintained multiple sanctuaries, and was a focus of production and especially consumption. Only partially self-reproducing, it relied on populations elsewhere to maintain its numbers but, with its immigrant communities, this was also probably true of civilian Dura. The military base and its population, then, comprised not just an enclave of imperial troops; it was a city within the city.

Scale of Dura's Extended Military Community

The overall size of Dura's extended military community is uncertain, and will have grown and fluctuated in line with the size and composition of the garrison. From the later second century, the garrison based at Dura is argued to have totalled up to 2,000 men (p. 250). It was also suggested that servants and family dependants of a long-established middle imperial military contingent will have at least equalled it in size, and could have outnumbered it significantly (pp. 253–255). Although we must note that some dependants are known to have accompanied soldiers outposted elsewhere along the Euphrates (*P. Dura* 46), we might, then, estimate the third-century community of soldiers and dependants at Dura as

normally totalling something of the order of 3,000–6,000 people—approaching a city-scale population indeed.

Relative Sizes of Military and Civil Communities

How did the extended military community compare with the civilian population in size? In the absence of census data, estimating the populations of Roman cities on archaeological data is notoriously difficult. While areas can be measured and building conformations analysed, establishing reliable occupation densities is especially fraught. The best current estimate for Dura is that proposed by Baird, applying her analysis of documentary evidence indicating multiple-household, although perhaps often extended-family, occupation of single Dura 'houses' to her archaeological study of the housing, which reflects extensive subdivision as well as amalgamation of civil dwellings in the Roman period (Baird 2014). Baird believes past suggestions of 5,000–6,000 (Baird 2014, 121 n. 143; Will 1988; Hoepfner and Schwander 1994) as likely underestimates based on unduly low occupation density figures, and would envisage something like c.10,000–15,000 people (pers. comm.).

The city's military accommodation looks much more obviously crowded, the converted civil houses seeing extensive subdivision of rooms, and extensions to the roofed areas through partial infilling of courts and building out onto neighbouring roadways. It looks as though even within the large area taken over, the garrison community struggled to find space, suggesting occupation densities even higher than in the civil town. However, this was in part offset by large areas of open ground and additional official buildings and service facilities which took much space. The characteristic military accommodation pattern of extensive spatial subdivision may have arisen from the demographic structure and cultural expectations of the military community, requiring larger numbers of separate but smaller dwelling units. This may also have been partly a consequence of having to accommodate many more transport animals than was the case in the civil town. Overall, however, the archaeological picture still suggests a high human occupation density in the military quarter, which in area was half to two-thirds the size of a European legionary base—broadly consistent with the total garrison community estimate of 3,000–6,000 people.

Both population estimates do have wide error bars, but it seems that the urban civilian population probably outnumbered the extended military community by a factor of something like 3:1. However, the relative social, economic, and political power of the two communities may have been a very different matter.

Two Communities, Two Power Structures

The walls of Dura, it now seems, encompassed not a civil town with a contingent of imperial soldiers, but rather two

communities of roughly comparable scale—and also roughly comparable internal social complexity, each with its own power structure. Each was composed of multiple, potentially competing rival groups, divided hierarchically: on one side officers, the mass of ordinary soldiers, and a probably even larger mass of military dependants, free and servile; and initially on the other side a ruling dynasty, closed urban elite, subordinate free population, and slaves. Each was also segmented vertically, into multiple military contingents, and ‘ethnic’ urban communities, and also differentiated along other dimensions, not least gender and age. This anatomizing of the two resident communities sets the scene, to mix metaphors, for thinking about social dynamics within the city walls. What, then, can we say about social relations inside third-century Dura?

Milites and Europaioi

Roman Dura has, since Rostovtzeff, often been seen in terms of a binary division, amounting to one-sided competition, between *milites* and *Europaioi*. In Rostovtzeff’s view, the incoming imperial soldiers undermined the Greek-speaking elite of what had recently been a formally Hellenic *polis* of the Arsacid empire, causing the city to atrophy. Whether or not there is any truth in this, ‘*milites* and *Europaioi*’ in the sense of two distinct and rival power structures does express the reality within Dura’s walls on initial establishment of the garrison. However, it seems this pairing of terms can equally express the very different reality of the last days of the city in 254–6, after the civilians had, it now seems, already fled. Dura would face its fate occupied just by Roman *milites* and their families, although these were people who, in the Greek which was the *lingua franca* of both soldiers and civilians in the Roman East, were themselves by that time also known as *Europaioi*. What happened in military: civilian relations between the arrival of regular Roman troops and the disappearance of the civil community?

An Honoured City of the Roman Empire

From the later second century AD Dura-Europos became part of the mosaic of hundreds of city-states across the Mediterranean and adjacent regions which formed the structure of most of the Roman empire. As we saw, the Romans did not sack the city, but rather maintained and honoured it. The Roman state evidently valued it, and doubtless wanted it to thrive, if primarily as a community of tax-payers, strategic asset, and garrison base facing Parthia rather than to promote and exemplify Greco-Roman provincial civilization near the frontier. But public honour for the city is the message of the award of colonial status, in my view probably granted decades before its attestation in 254.

Our reliance on a single papyrus for knowledge of this reminds us of just how limited is the evidence for even the

basic constitutional history of Dura under Rome. However, colonial status places it in the context of other Syrian cities with and without imperial garrisons, and of wider known trends and processes in the Roman empire. What were the general factors and patterns we can see operating at, or might might reasonably expect would have applied to, Dura and how might these have played out according to the city’s specific local circumstances?

Evidence of other cases under Roman rule, notably that of Bostra, home of *legio III Cyrenaica*, suggests that the imperial authorities, and those at Dura itself, will have presented the city as home to two communities ostensibly of equal standing and honour, civil and military (Stoll 2001, 438; Reeves 2004, 213). According to Stoll’s study, such garrisoned cities in Syria exhibited genuine trends towards *concordia/homonoia* between soldiers and civil population, extending not just to symbiosis but to significant degrees of integration between them (Stoll 2001). As we have seen, other early twenty-first-century commentators have also emphasized the likely substantial economic benefits accruing from the steady inflow of soldiers’ pay to the urban economy, boosting urban prosperity (Sommer, M. 2005, 313; Ruffing 2007, 406). But how far was all this the reality at Dura? What were the actual dynamics?

One thing is now clear: establishment of a substantial garrison much earlier than hitherto thought also means that those dynamics had almost twice as long to work themselves through than has been previously thought—time for three full generations of soldiers to pass through the ranks, rather than less than two—potentially radically transforming Dura society. On the garrison history model used here, *cohors II Ulpia* and the legionary contingents were present for up to around thirty and forty-five years respectively, long enough for some soldiers to see grandchildren born in the city. The foundation of *cohors XX Palmyrenorum*, if it was indeed established in the city and always remained based there, will have been passing beyond living memory by the 240s, while some of those caught up in the disasters of the 250s were probably the great-grandchildren of the cohort’s first recruits.

How distinct, then, were the two communities by 250, on the eve of the prolonged death of the city? Was Rostovtzeff simply wrong about division and imperial oppression, and Stoll right in emphasizing the process of integration over demarcation?

Archaeology Seems to Fit with Concordia and Prosperity

The present project found multiple physical indications of real military respect and concern for the city’s gods, institutions, and population, albeit within the practical limitations of having to accommodate a large garrison community.

Garrison provision of baths and an amphitheatre apparently open to the civilian population would materially attest imperial policy of promoting *concordia* in action.

At the same time other material indications, such as ‘colonization’ in and around the agora district, construction of a ceremonial arch across Main St, and civil temple refurbishments, suggest continued or increased urban prosperity. As we have seen, this flatly contradicts Rostovtzeff’s gloomy view of the grant of colonial status as an imperial sop, a fig-leaf hiding a far grimmer universal reality of civic impoverishment caused by military exactions and extortions. It seems the city flourished, suggesting it gained substantially more from the steady inflow of money from army purchases and soldiers’ pay than it lost in taxation and exactions in kind. All this suggests that interaction at Dura overall worked largely as Stoll and others have proposed. But how did it work in detail?

Evolved to deal with a world of city-states like Dura, in newly conquered areas the basic Roman imperial mechanism of provincial control was, where possible, to maintain continuity of established governmental and administrative structures. This minimized the effort of imperial administration by leaving most government, administration, law enforcement, and tax collection devolved to urban aristocracies, or even to existing local dynasts continuing as client rulers, although such regimes were normally eventually abolished and replaced by civic governments under Roman provincial governors. The payoff for local elites was, at the most basic level, that the emperor guaranteed their position; in return for collecting the taxation which largely went to pay the armies, his soldiers were the ultimate guarantors of the provincial order, and formed the third essential component in the pact of empire. This is the Roman strategy of ‘sword and open hand’ in action (p. 33), a means of promoting general acquiescence to imperial rule and integration at least of elites.

This arrangement created the circumstances for the prosperity of the earlier imperial period which led to the splendidly appointed cities, more or less Greco-Roman in appearance and constitution, which studded the Mediterranean world, including Syria as one of the richest provinces. The mechanism was that much of the wealth from a growing imperial economy, largely in the hands of the urban oligarchies, was expended on striving for prestige, within and between cities through intensive but peaceful internal competition instead of wars. Aristocrats jockeyed for position through networking, forging friendships, and alliances with useful peers, and seeking and offering patronage: winning the favour and support of superiors, and granting favours to subordinates. From the first to third centuries a major public arena for ambitious aristocrats was competitive civic euergetism: funding of public events such as festivals and feasts, and of urban infrastructure like temples, colonnades, and theatres, in which they acted ostentatiously as benefactors and patrons of their home communities.

The Roman world worked by patronage, the ultimate earthly source of which was the emperor himself. Leading citizens vied for imperial favours and honours for their home cities, which would also boost their own domestic standing. For some, imperial patronage might also lead to opportunities beyond their own city. Grants of Roman citizenship for key local aristocrats could lead to equestrian or even senatorial rank, and perhaps a career in imperial service, with lucrative posts in provincial administration and/or military commands. It was an almost empire-wide phenomenon which certainly prevailed in Roman Syria (Sartre 2005, 183–8). The equestrian tribunes of Dura’s auxiliary formations such as Terentius were such men, some of whom might rise further, to governorships and army commands. An exceptional example was Avidius Cassius, born in Cyrrhus in Syria to a prominent equestrian father. Becoming a senator and serving Lucius Verus as a general, he was presumably the ‘liberator’ of Dura in c.165 before marching on to sack Ctesiphon, winning a suffect consulship the following year (Birley, A. R. 2001, 130, 140–1). The marriage of the rising African senator Septimius Severus to Julia Domna, member of the dominant priestly aristocratic family of the great Syrian city of Emesa, led to the rise of a major, essentially Syrian imperial dynasty. However, of course the vast majority of the urban aristocracies could not and did not aspire to such dangerous heights. Yet the intimate relationship of mutual dependency between civic regimes, the emperor, and his soldiers, truly reciprocal if highly asymmetric, was the fundamental motivation for promoting *concordia* in garrison cities.

Such dynamics can be discerned operating within civil Dura which, after the Roman take-over, saw continuity of the old aristocracy of *Europaioi*, and indeed of the Lysiad dynasty. For reasons unknown, one *strategos kai epistates* was granted Roman citizenship by Severus (p. 292). Then in 212 the *constitutio Antoniniana* will presumably have seen all the domiciled residents of Dura except slaves, both military and civilian, become Roman citizens, ostensibly facilitating *concordia* with the now well-established Roman garrison. And at some stage, perhaps around the same time, the grant of colonial status was a further real civic honour if, as we have seen, by that date rather debased by over-use.

That other characteristic of provincial urban civilization during the Principate, euergetism, did not have much time to develop at Dura, as the city came so late and briefly to the provincial fold—and anyway this tradition declined rapidly in the third century as the wealthy switched increasingly to personal rather than civic display. However, it is likely that many of the significant changes to the civic face of Roman-era Dura mentioned above, such as notably the Main St arch (p. 292) street colonnades and temple refurbishments, do represent acts of euergetism by prominent citizens.

It is also likely that there were several golden opportunities for Dura’s leading civic figures to win imperial favour and

largesse for the city and prestige for themselves, as several emperors likely visited Dura on campaign down the Euphrates—although whether the gains, both material and intangible, outweighed the temporary burden of hosting the imperial retinue is moot. In later 197, Septimius Severus used the Euphrates route on his way to attack Parthian Babylonia (Cassius Dio 76.9), almost certainly passing through Dura—which conceivably he already knew from his time as legate of *legio IV Scythica* around 180–2 (Birley, A. R. 1988, 58, 68–9, 130). It is quite possible that this visit resulted in the garrison building the C3 and M7 Baths, and refurbishing the F3 facility, as an act of imperial largesse. In 232 one of Severus Alexander's three armies attacking the Sasanians apparently advanced down the Euphrates (Herodian 6.5–6). It has been suggested that the emperor himself visited the city during these operations (Cumont 1926, lix). Gordian III may also have visited Dura on his ill-fated campaign of 244 (Sartre 2005, 347; Gawroński 2011), being subsequently buried not far away (Amm. 23.5.4–8).

Dura, it seems then, generally thrived as a Roman city hosting an imperial garrison, and shows archaeological and epigraphic evidence of military : civil *homonoia*, in the manner Stoll, Reeves, Sommer, and Ruffing have envisaged. We can even directly glimpse links of friendship and patronage across the military–civic divide at Dura which were the very stuff of *concordia*. A wooden *tabula ansata* found in the Palmyrene gate was set up by the decurions of an unspecified cohort to 'Septim(ium) Lusian Str(ategum) Dur(ae)' and his family (PR 2, 148–51; Leriche and El 'Ajjī 1999, 1325). It probably implies some act of patronage by the head of the civic government directed to the officers of 'the cohort', who reciprocally and publicly expressed their gratitude by a dedication of their own.

A somewhat grimmer means of imperial encouragement of a sense of solidarity in garrison cities was emphasizing the need for a shared fight (*symmachia*) against common 'barbarian' enemies posing a threat to the empire (Stoll 2001, 412). If Arsacid Parthia was no great peril to Dura during much of the city's Roman period, the potential danger posed by the new Sasanian empire will have weighed heavily on the minds of everyone in the city during the last quarter century of its existence. Sasanian raids in strength and attacks on Roman military stations in Mesopotamia and on the Euphrates began in 230, and certainly reached Dura in 239. Given such imminent danger, the need for *symmachia* at Dura was starkly clear.

However, as Stoll himself notes (2001, 422 n. 7), all this may be seen with a sceptical eye, as simply an imperial 'hearts and minds' policy, just calculated self-interest aimed at making life easier for provincial administration and garrison by encouraging local acquiescence, with e.g. favours such as grant of colonial status serving as carrots as well as, if needed, a military stick, the reality being that Dura was now 'a mere garrison town, whose main duty was to house and feed the

Roman soldiers' (Rostovtzeff 1938, 50). Indeed there are other indications that at Dura the picture was not entirely rosy, and much more complex than Rostovtzeff or indeed Stoll allowed—and largely for the same reason: both focused too closely on the perspectives, interests, agendas, and actions of social elites: the urban ruling classes and military authorities (pp. 24–25).

Elites Were Only Part of the Picture

What we see in the archaeological remains of construction schemes and in formal epigraphy mainly offers evidence of the policy of the military authorities, and the actions of the powerful and the propertied among the civil community—Dura's elites. This is obviously very far from comprising a complete picture of the sociopolitical and economic dynamics of Roman Dura. How did the city's ordinary citizens, its poor, and its slaves fare? How did ordinary *milites* and their dependants respond?

Taking a wider perspective, one which includes the full range and complexity of the demographic composition of the city's population, opens up a very different potential way of seeing the architectural and formal epigraphic evidence—through a more sceptical glass, darkly. As we have seen, at cities like Bostra the minting of coins featuring *concordia* between townsfolk and garrison might celebrate reality, but especially in the troubled middle and later empire such propagandistic coin reverses often indicate the authorities' anxious aspirations, where the reality was rather the opposite. *Concordia* coin types may be indicators that, in the shadow of foreign and civil wars, harmony between soldiers, and between soldiers and civilians, was actually in short supply. And how far were the postulated joint military–civilian events at Dura, such as imperial acclamations and oath-takings, expressions of real *concordia*? Did they perhaps rather resemble Soviet or North Korean show parades, participation in which may, for many, have been far from voluntary or sincerely enthusiastic? Did Rostovtzeff have a point after all?

The reality of the Roman empire was that the imperial regime and the local, urban-based oligarchies were not especially interested in the assent of the bulk of the population to their rule, even in principle. In a society founded on subordination and repression, extending to chattel slavery, the ruling groups merely required the acquiescence of the majority, partly achieved through persuasion—euergetism meant sponsoring crowd-pleasing games, festivals, and feasts, as well as adorning cities with public facilities—and ideological and religious indoctrination (civic and imperial propaganda and cult). But this was backed with the threat of juridical violence, an order ultimately guaranteed by the swords of the emperor's soldiers. All this was required, because subordinate groups in the Roman empire were not necessarily docile even at the best of times. And as the second century gave way

to the third, for many life would become progressively more difficult and dangerous, not least in eastern frontier cities.

It seems that, following the *constitutio Antoniniana*, few Durenes rushed to adopt the *tria nomina* of Roman citizens. This hardly indicates wild enthusiasm for their new status, which according to a well-placed contemporary witness was ostensibly an honour really granted primarily to make more people liable to particular imperial taxes (Cassius Dio 78.9). Other former benefits of Roman citizenship were also being eroded by this period. Citizens had been exempt from things like juridical torture to which provincials were liable, as in the famous case of St Paul (*Acts* 22:23–9). However, as the segmentation of the empire's population between Romans and provincials was abolished, so a new legal class distinction within the citizen body was evolving, between *honestiores* and *humiliores*. The *honestiores* comprised a new legal category for the privileged imperial elite, of course including the imperial house, senatorial and equestrian orders, and the provincial landowning aristocracies. In the third century it also included the soldiers. All other free people were becoming *humiliores*—Roman citizens still, but now increasingly legally liable to corporal violence (Rilinger 1988).

This emergent distinction, formalizing inequality before the law, was a symptom of the ever greater polarization of wealth and power in the Roman empire, which was progressing during the near-century Dura was part of it. Increasingly tending towards oppression rather than reciprocity in civil society, the state was evolving into an overt military autocracy in which emperors were more and more inclined to present themselves as living gods. A notorious symptom of declining reciprocity was Severus' advice to his sons to 'enrich the soldiers and scorn all others' (p. 299). Severus and Caracalla did indeed both substantially increase the pay of a military which had by their time grown c.50 per cent larger than it had been under Augustus. On rare occasions military aggression could still deliver the fabulous wealth and glory craved by the *milites*, such as Severus' taking of Ctesiphon in 197–8 which captured the Parthian royal treasury and, reportedly, 100,000 prisoners (Birley, A. R. 1988, 130). However, most of the burden for pay and supply fell on the provincials as taxation, resulting in increasingly onerous imperial demands and obligations which by no means fell equably. Their legal privileges and patronage networks allowed many in the civic elites to evade their share of the growing burden, ensuring it fell on the less well-off.

Even if Dura as a city became more prosperous, then, its urban fabric acquiring many of the trappings of Greco-Roman urbanism albeit on a modest scale, and even if fuller integration into the Roman provincial economy made consumer goods more readily available in the agora, it does not necessarily follow that the civic community across the board benefited under Rome. Indeed, life in what had long been a strongly hierarchical society may have worsened not only for

the poor and the servile, but also for many of modest means—a decline at least in relative terms due to further deterioration in their rights and relative social standing, and perhaps even in living standards. Even if the material lot of the bulk of Dura's population did improve under Rome—and that is not established—it is now understood that people's sense of well-being, and even their physical and mental health, depend less on their absolute wealth than on their perception of their place in society—on their sense of inclusion and social worth (Marmot 2004). It is therefore moot whether Dura's ordinary townsfolk, now *humiliores* liable to imperial obligations like *corvée* labour and heavier taxation which the more privileged were able to evade, and the most vulnerable to unofficial extortions by *milites*, perceived themselves to be better off and happier as Roman citizens under a Roman civic constitution and with a Roman garrison in town, than their grandparents in Arsacid times had been under the old *Europaioi* and the Lysiads.

At Dura as elsewhere, then, imperial policy, which in garrison towns especially manifested itself in terms of fostering *concordia/homonoia*, was primarily intended to serve the interests of those deemed to matter—the urban ruling class and the representatives of the state—and may well have done so to the detriment of the rest. However, there is also evidence that everything was not necessarily sweetness and light for Dura's urban elite either.

Problems for Dura's Civic Elite

For all their privileges and their pact with the emperor, during the century Dura was part of the empire provincial elites were far from entirely secure in a dangerous and sometimes literally cut-throat world, of growing, often arbitrary autocracy and of civil and foreign wars—especially in exposed frontier cities facing the Sasanian empire.

One major change was disappearance of Dura's ruling House of Lysias and the traditional offices of *strategos* and *epistates*. These actually survived the first half of the Roman period, being attested into Severus' reign, albeit perhaps held for a time by a collateral branch of the family (Leriche and El 'Ajjī 1999, 1326–7). However, there is no evidence of either dynasty or offices continuing after the reign of Severus. Such removals of client rulers and regimes were indeed common imperial practice, e.g. when a local ruler lost imperial favour due to some ill-judged action or simply because the emperor's priorities changed, leading to a local crisis. The death even of a favoured incumbent required a decision to appoint a successor or to establish a different form of government in his domain. In Dura's case the death of the honoured *strategos kai epistates* Septimios Aurelius Lysias, perhaps under Caracalla, may have triggered the decision to change the city's constitution, given its large garrison most likely directly to a Roman *colonia*.

Until 254 when Dura's colonial status is specifically attested, we have very limited information on how the third-century city was governed and administered. It clearly already had a *boule* early in the century, with a *bouleuterion* now firmly identified in the 'odeon' of the H2 Temple of Artemis by an inscription discovered by MFSED. The facility exhibited two phases, the second apparently subsequent to installation of a statue, lost but attested by its inscribed base recording that it was dedicated by 'the *boule* of the *Europaioi* to Septimios Aurelius Lysias, *strategos* and *epistates* of the city' (Leriche and El 'Ajjī 1999, 1322–4). The statue had honoured probably the last of the Lysiad *strategoī*. Leriche argued that the names Septimios Aurelios indicate that he had received Roman citizenship when Severus and Caracalla were both *Augusti*, i.e. 198–211, suggesting the statue was set up around that time or perhaps slightly later (Leriche and El 'Ajjī 1999, 1327–8). Subsequently the *bouleuterion* was extensively modified, with insertion of a new horseshoe-shaped seating arrangement supported on fired brick vaults. This represents adoption of Roman technology, although the bricks were set at 90° to the normal Roman orientation seen in the bath vaults, perhaps indicating local masons interpreting the new techniques in their own way. This final rebuild, which is not precisely dated, probably marked the reorganization of city government at the time of the grant of colonial status. The fact that it carefully preserved and respected the statue of the *strategos* may suggest that the new scheme was implemented while his memory was still fresh and important in the city. Leriche has suggested that the new seating arrangement of the *bouleuterion* indicates it was presided over by a pair of magistrates (Leriche and El 'Ajjī 1999, 1331), which would fit with a change to a new Roman-style constitution.

More curious and difficult to explain than the removal from power of the Lysiads is the apparent decline and disappearance of the old *Europaioi* during the Roman era, something which does not obviously fit with the positive picture of *concordia* painted by Stoll. The Greco-Macedonian personal names known or taken to attest these *Europaioi* decline markedly in surviving texts during the Roman period, with Semitic names increasingly predominating in texts. This, which has been taken to indicate the flight or fall of the old urban ruling class (e.g. Dabrowa 1981, 73), is a curious phenomenon, as Dura had become part of Rome's 'Greek East', and in the context of the so-called Second Sophistic celebrated its Hellenistic heritage, remembering its Macedonian origins, specifically its foundation by Seleucus Nicator. Under such circumstances, it might be expected that possession of Greek family names and a tradition of descent from Macedonian soldier-settlers would have continued to be prized sources of cultural capital. What was going on?

With regard to the apparent decline of the *Europaioi*, it is now thought that its members boasted not only Greek names but usually, if not always, also possessed alternative Semitic

names. Some certainly did, and apparently chose which to use according to context (Pollard 2007). Others may not always have bothered to specify 'also called...' and so appear as either 'Greek' or 'Semitic', where they were actually bilingual and of mixed or rather multifaceted culture. It may be that for reasons unclear the very different environment of Roman rule simply reduced the *kudos* of displaying Greek names, rather than indicating any much more dramatic political upheaval (Pollard 2007, 100). The old *Europaioi* may, then, have partially adapted to new circumstances and lost visibility rather than disappearing. Nevertheless, the broad coincidence of this significant onomastic shift with political and constitutional change remains noteworthy. Not just for its ruling house, then, but for Dura's wider dominant class, Roman rule evidently brought substantial changes, some uncomfortable or threatening.

Threats to Dura's Civic Elite

A potentially fundamental problem for civic elites in garrison cities was that they did not constitute the only local representatives of imperial power, or potential source of patronage. In such cases, the soldiers were not distant, unseen guarantors of peace backing the established civic order. The reality at Dura, certainly after c.210 and probably beginning before 180, was that the city walls enfolded two substantial parallel communities, and two parallel social hierarchies, perhaps de jure of equal status, but with the military as de facto increasingly the dominant partner. Dura's garrison normally included at least one military tribune, a Roman equestrian who in his own right was probably the person of highest social rank in the city, even without considering the *ex officio* prestige of his imperial appointment and practical power of his military command. There were also usually more than a dozen centurions and decurions—influential officers—plus the mass of *milites* who all ranked as *honestiores*. All of these directly manifested the power of the emperor, and wore swords on the streets. No matter how hard the emperor, provincial governor, and these local military officers strove through public and material actions to foster a spirit of *homonoia* and to uphold the honour and dignity of Dura's civic government, magistrates could have struggled to project their authority in the presence of the garrison. As Kaizer has noted: 'A bouleuterion was indeed located within the sanctuary of Artemis, but the remaining elements of the Greek civic constitution seem to be overshadowed—at least from the early third century onwards—by the dominant position in society of senior military officials' (Kaizer 2015, 96).

Over the decades there were bound to have been incidents of all kinds between soldiers and Durene civilians, from monetary disputes and robberies to drunken fights, assaults, and occasional deaths—matters over which the civic authorities had no jurisdiction; soldiers were under military law. Doubtless ordinary Durenes could see where the real power

lay, which may explain one striking phenomenon in the textual evidence: military officers acting as judges in apparently entirely civil cases (*P. Dura* 125–7). One text is fragmentary, but the other two detailing such cases, both dating to 235, were tried by the tribune of *cohors XX*, Laronius Secundianus. It is perhaps unsurprising that civilian plaintiffs should take their cases to the highest-ranking person and representative of the emperor in the city. But this apparently implies that through their sheer proximity, and even despite official policy, the military undermined the authority of civic magistrates and the prestige of the urban elite. Was Welles partly right, then, that the garrison did make normal civic government impossible—not necessarily through swarms of lawless soldiers on the streets, but because of issues like military officers usurping its judicial powers? Was creeping loss of face and credibility a reason for the eclipse of the old *Europaioi*?

Whatever the dynamics of the specific example of the legal cases, they raise the crucial, more general point that the overall historical pattern at Dura was the outcome of multiple factors of which imperial policies such as pursuit of *homonoia* were only part, and which in implementation may themselves have had multiple, contradictory, and partially unintended outcomes. Policies had to be enacted on the ground by individuals and groups who, especially in a world built on intense competition, were motivated to pursue their own interests, potentially exploiting, subverting, or thwarting imperial intentions in the process. With regard to the documented legal cases, it is likely that tribunes accepted the opportunity to judge these themselves, to boost their own *dignitas* (and perhaps profit materially from ‘gifts’ from plaintiffs?), despite undermining imperial policy of *homonoia* by doing so.

Here the internal complexity of both Dura’s civil and military communities, the agency of their constituent elements and the dynamics within and between them, all come into play. If some, above all successive military tribunes, were well placed to benefit personally, at the same time those on the receiving end of negative impacts, like increasingly oppressive legal and taxation regimes, were unlikely always to passively accept their lot. While we can only glimpse some of the details, we can reasonably infer that the outcome of the prolonged civilian–military encounter at Dura was far more complex and nuanced than previous commentators have allowed.

The Limits of Domination

Even under autocracy, as in prison regimes, there can be some mitigation of its grim effects through the basic human need to live together. If officers and soldiers were sometimes tempted in their own interests to behaviour which undermined the imperial desire for *homonoia*, the necessity for the garrison to treat at least prominent Durenes with a degree of

respect will have meant that people like *bouleutai*, their families, and clients would also have received some protection from arbitrary behaviour by *milites*.

And just as the policy of *concordia* was motivated by the reality that even a quasi-divine emperor relied on the collaboration of provincial aristocracies to run the empire, thereby offering them some real if limited leverage, so local elites could not get their own way over their own subordinates simply by military-backed oppression. Even if outright revolt appears very rare in the Roman empire, excessive demands and brutality by the powerful might lead not just to evasion, subversion, and passive resistance, but could push people into outlawry and ‘brigandage’—armed lawlessness which already in the second century AD is sometimes hard to distinguish from political insurgency. Perhaps this was a matter of definition, perspective, and political propaganda, as in some modern cases such as the Northern Irish conflict (1969–96). Indeed military deserters and cashiered soldiers were an especially dangerous source of ‘brigandage’ in the empire, which under Commodus and Severus required full-scale military operations to suppress (James 2011a, 199). In times of political instability and foreign war—of perceived regime weakness—there was risk of local tensions and peripheral banditry escalating to internal revolt. The so-called Revolt of the *Boukouloi* in Lower Egypt in AD 171–2 seems to have been triggered by heavy-handed governance in a time of exceptional stress and social disruption caused by the Antonine Plague (Alston 1999). Troubles like these were increasingly common by the third century, partly due to the failures of the armies to protect the frontier provinces from foreign invaders, and the closely interrelated tendency of the soldiers themselves towards mutiny, rebellion, and fighting each other. This was the wider, increasingly unstable context of Dura in the Roman era, a city where, *in extremis*, there was also the option of escape across the frontier.

So even with urban governments and an imperial regime which did not rely on formal assent of the governed, such potential risks placed constraints on the practical extent of asymmetries of power in the Roman empire. The need for carrots as well as sticks underpinned civic euergetism, while patronage offered the prospect of tangible benefits to faithful clients, and slaves might hope for freedom following diligent service.

Perhaps the supreme (and extreme) example that domination in the Roman world need not mean cowed obedience is provided by the soldiers themselves. Ordinary *milites* were famously subject to, by modern standards, a brutal disciplinary regime. They were the only group of *honestiores* who had to tolerate physical violence from their superiors while refraining from lethal retribution in defence of their *virtus* (McDonnell 2006; James 2011a, 69, 168–9, 200). Yet despite—or partly in compensation for—this standing potential source of humiliation, soldiers remained highly aggressive, touchy about their honour, vociferous, and

unruly. They had to be wooed, especially in times of dynastic uncertainty, which made actual enforcement of theoretical disciplinary norms increasingly difficult during the decades of Dura's Roman period. Nominally very tightly controlled, in practice soldiers clearly possessed considerable agency to pursue their own interests. This was of course primarily because *milites* bore arms, but other more obviously subordinate social groups could also exert some degree of influence. Freed(wo)men and even slaves took their social standing, and sometimes a degree of licence, from their membership of the *familiae* of their patrons and masters, potentially offering scope for members of the households of *honestiores* like soldiers or members of the *boule* to leverage their position to personal advantage in dealings with lesser free citizens. All this gave some members of the lower orders, too, a limited degree of agency.

Among the mass of civilians, some doubtless were, more or less literally, beaten into submission to the established order. However, people vary, some proving much more resilient than others. Another equally important factor is chance, with changing circumstances providing opportunities to the bold who find themselves well-placed. For example, within civil communities like Dura, the unexpected death of an important patron may have dashed the prospects of his clients, but provided an opening for his rivals and *their* clients. While for some Durenes, the massive local change occasioned by establishment of the Roman military community perhaps represented a disaster, for others it doubtless offered unexpected prospects. While the focus of imperial *concordia/homonoia* policy was on the interests of the civic elite and officer class, for civilian Durenes of all ranks positioned to seize it, proximity of the Roman garrison offered a standing opportunity to escape the restrictions of the existing civic order by trying their fortunes with the military community.

Winners and Losers in a Non-Zero-Sum Game

If we add, then, the vagaries of dumb luck to the equation and consider the shifting background circumstances of changes of emperor leading to general instability plus outright civil and foreign wars, then we might expect at Dura a complex and shifting pattern of winners and losers, in what was not a zero-sum game. As we saw, the overall wealth and prosperity of the city perhaps did grow significantly as a result of military pay and imperial patronage deriving from the presence of garrison and base—at least until the catastrophic 250s. Yet even if this was so, it represented the aggregate of the lives of individuals, families, and social groups, among whom the benefits, and the undoubted burdens, of Roman rule and living in proximity to a garrison will not have fallen equitably. Both winning and losing may well have been the experience of different sections of each of Dura's many groups in the Roman period, from slaves to members of the *boule*, a complex pattern of ups and downs

itself shifting according to changing wider circumstances—until the Sasanians swept all the pieces permanently from the board and everyone lost; for the empty husk of a city which they decided not to hold was a Pyrrhic victory for the Iranians too.

But over the preceding seventy years or so, and mercifully unable to see the future, winners in the civil community will have included those able to seize opportunities to profit from dealings with the troops, such as traders and suppliers like Aurelios Nebuchelos, some of whose accounts survived written on the walls of a house in B8 near the intersection of Main and H Sts, attesting dealings (*PR* 4, 79–145: e.g. no. 245 regarding wine, and nos. 200, 204, 213, and others for barley; Ruffing 2007, 401–2). Human trafficking was perhaps the starkest aspect, its transactions encompassing both sides of the coin: profit for whoever sold girls and boys to Dura's military brothel, but the slave prostitutes they were destined to become had already lost. Many slaves acquired by the military community will have died losers after a life of brutalized drudgery, although there will have been some winners even among them: for example, slaves purchased by citizen soldiers of *cohors II Ulpia* in the second century would, if they lived to be manumitted, become Roman citizen freed(wo)men in a city still overwhelmingly peregrine. A proportion of female soldiers' slaves might end their days as respectable military wives and mothers, even if they could not forget their grim youth.

The needs of the garrison also doubtless offered contract work to Dura's free artisans, notably smiths producing for military customers and patrons. Did some specialize as armourers, effectively becoming employed by the garrison, even slipping across a community boundary which by AD 200 was perhaps becoming increasingly blurred?

Likely the strongest force blurring the boundary will have been intermarriage between the communities. Soldiers tended to marry the sisters, daughters, and indeed widows of other soldiers (Stoll 2006, 278–9), but there were never enough 'military women' for garrison communities to be fully endogamous, and connections in the town doubtless offered access to a convenient supply of potential brides. Conversely, the savings and prospects of mature and respectable established *milites* made them attractive marriage partners. At the same time, some soldiers' sisters and daughters may well have married suitable townsmen, where the families perceived mutual advantage. The result would be kinship links between the two communities which, especially for *cohors XX* over the roughly three generations of its stationing at Dura, could have become a dense web. If so, this was the very stuff of integration, and of success of official promotion of *concordia/homonoia* bearing fruit below the level of social elites—although humans being humans, given the timeframe it would probably have happened anyway. However, the only specific example attested is of a legionary marriage, of Julius Antiochus of *IV Scythica* and Aurelia

Amimma 'of Dura', whose fleetingly glimpsed relationship also involved a negative shift of fortune, as it ended in divorce arising from unspecified circumstances. This was in 254; had Antiochus been obliged to leave Amimma behind in the city two years before, because his vexillation had been recalled to help fight the Sasanian invasion of 252? If so, he had survived the fighting, and Amimma had survived a probable Sasanian occupation of Dura—but their marriage evidently did not.

Another obvious potential channel of interaction is Duraene enlistment in the local garrison. The possible extent of this has not been fully considered, although the career of one individual *miles* has caused comment. Around the years 219–25, one Aurelius Septimius Danymus was chief centurion of the cohort (*FR* 5.1, fig. 3; e.g. *P. Dura* 100.i.2). This is extremely interesting, as Danymus is an unusual name—although well-known among the *Europaioi* of Arsacid-era Dura (Gilliam, J. F. 1957, 167). Did he enlist in youth and rise through the ranks? Much more likely, he was a local worthy who secured for himself a direct commission as centurion. Direct commissioning of auxiliary centurions was an established practice, perhaps 'to obtain literate and educated men to help deal with the paperwork and administrative functions of the army' (Gilliam, J. F. 1957, 168; see also Haynes 2013, 326); a scion of the old *Europaioi* was likely not only fully literate in Greek—something locally in short supply for a unit largely of Aramaic speakers—but may also have been accustomed to dealing with property accounts, and wielding authority. The case of Danymus offers an example of how one family from the old order successfully negotiated the altered circumstances of the Roman era, apparently securing their continued prominence in both communities of the changing city.

There is also the major question of the potential impact of a counter-flow of discharged veterans and their families into the civil community, while their living links to their former comrades meant that they did not fully leave the military one. This may have been less a legionary issue, if the vexillations at Dura remained closely integrated with the distant base communities at Zeugma and Samosata, e.g. through rotation, if not of contingents (c.f. 'the local vexillation' of *IV Scythica* in *P. Dura* 32), then of personnel, perhaps posted to Dura for a few years—although our one attested military marriage indicates local ties were made, which might have encouraged some legionary veterans to settle nearby. It was potentially much more of an issue for the auxiliaries, again notably the long-established *cohors XX*. The evidence remains limited, and patterns varied from place to place and unit to unit (Stoll 2001, 108); evidence for Britain, for example, shows a mixed picture (Haynes 2013, 344). Some evidence led Margaret Roxan to quip that, in particular, 'Thracians go home' (1997, 487), while it was quite common for others to settle close to their former bases or elsewhere in the province of their service. Staying near to established friends and patrons made obvious sense. The Dura papyri do attest locally settled

Roman veterans, e.g. of *cohors III Augusta Thracum* buying land in the Khabur valley (below). While we do not know specifics of any veterans of Dura's own garrison settling locally, many likely did so, as Welles was aware (p. 254). However, it is easy to exaggerate the direct impact of veteran settlement, as men receiving honourable discharge after twenty-five years of physically strenuous service are unlikely to have enjoyed many more years of active life. Yet on the other hand, if they did buy up nearby land and city housing, who inherited it? Their sons (perhaps soldiers themselves), or comrades named as heirs? Families of military origin or connection perhaps came to own a significant proportion of Dura's real estate, urban and rural, by 250.

Given their modest property and especially their connections, honourably discharged veterans could become men of some influence and account in their new, civil communities; there are known cases of veterans acting as patrons and protectors of their civilian neighbours against abuses by serving soldiers—although perhaps only against men from units other than their own, to whom they owed no personal loyalty (Stoll 2001, 109–10). Otherwise, veterans acting in their own interests may often have been to the detriment of local civilians. Dura preserved a Greek deed of sale of a vineyard, apparently on the Lower Khabur, in AD 227 (*P. Dura* 26; Sommer, M. 2005, 325–6). Julius Demetrius, a veteran of *cohors III Augusta Thracum*, purchased it from a local civilian Otarnaesus. This document was witnessed by five serving officers and office-holders of the unit while Aurelius Salmanes, another veteran, signed on behalf of the illiterate vendor, affirming the latter was content with the price paid. Perhaps this was so, but Otarnaesus was surrounded by the purchasers' friends and former comrades who drew up a legal document in a language he could not read and perhaps could not understand, and signed it for him. The potential for intimidation and extortion is clear.

It has sometimes been suggested that, as men of property, settled veterans would have taken their place on local city councils, although Haynes has also argued that there is little evidence, especially for auxiliary veterans, that this really happened (2013, 339–55). At best, the phenomenon seems limited to some retired regimental officers, of whom there would never have been more than a handful at Dura. On the other hand, if relatively few, their military networks could have made any such veteran *bouleutai* especially influential. It may be imagined that Danymus especially, if he lived very long after discharge, would have become a key figure in civic life, and a valuable go-between for the *boule* and incoming tribunes and *praepositi* periodically taking over command of garrison contingents. There is one other known *bouleutes* with probable garrison connections, a witness to a third-century deed of sale whose name is lost but was 'son of Antoninus', a name having 'an obviously military association' (Welles 1951, 270: *P. Dura* 27)—so a veteran or son of a veteran? If they are unlikely to have swamped Dura's

boule, did veterans nevertheless join it in sufficient numbers to become a disproportionately powerful bloc within it?

Cohors XX also of course began as a regiment raised from Palmyrenes. Haynes has recently shown that such ‘ethnic’ auxiliary units generally did not continue to recruit from their original homelands as some, especially eastern archer units, had been thought to, but actually drew on the nearest available recruitment source at the time (Haynes 2013, 135–43). However, *XX Palmyrenorum* was relatively unusual in remaining only a few days’ travel from its city of origin which also had intimate continuing ties with Dura. It may therefore indeed have continued to recruit preferentially from Palmyra simply as Haynes’s nearest available source. Which brings us to the wider ‘Palmyrene connection’, and its potential role in military–civil interactions at Dura.

Long before the Roman annexation of Dura, Palmyrenes apparently occupied a very special place in the city’s economy and politics (Fig. 14.2). It is likely that before c.165, being already in the Roman orbit, Palmyra acted as a go-between and proxy for imperial interests at Dura as some emperors developed more interventionist policies on the Euphrates. Subsequently links between the Roman and Durene authorities will have become direct, to the provincial governor for legal and administrative matters, imperial procurators for tax questions, and to military officers stationed in the city for matters relating to the garrison. However, the major ‘Palmyrene connection’ continued and was in important ways enhanced, initially as a military presence. And whether Dura’s first Roman proxy garrison of Palmyrene archers was reorganized directly into *cohors XX Palmyrenorum* or



Fig. 14.2. A Palmyrene priest makes an offering to the Gad (guardian deity) of Dura. From the Palmyrene sanctuary, the Temple of the Gaddé.

replaced by them, the conspicuous continuing presence of people from the oasis city, both in uniform and out, offered them a potential role as honest brokers between their imperial *hegemon* and their old neighbours and trading partners, as the larger and more powerful city-state perhaps acting as Dura's patrons and advocates at the imperial court. Locally, with citizens prominent in both Dura's civil and military communities, Palmyrenes were ideally placed to act as catalysts of *homonoia*, and offered a pre-existing conduit facilitating integration between garrison and townsfolk.

At least, such is the optimistic reading of this relationship. However, Palmyrenes may also be expected to have acted in their own interests as well as those of their friends in Dura. Palmyrenes were a famously enterprising people, with a tendency to military/political ambitions of their own as opportunity presented, seen in Palmyrene garrisons on the Middle Euphrates from the second century, and culminating in the careers of Odenathus and Zenobia in the chaos engulfing the Roman East following the fall of Dura and the capture of Valerian at Edessa in 260. As we saw, Luther and Kaizer have mooted an earlier 'Palmyrene protectorate' over Dura, in the later second and early third centuries (p. 22). The large regular Roman military presence in the last quarter of

the second century AD proposed here makes the notion of such a protectorate far less plausible. Nevertheless, certainly a highly influential component of both civil population and garrison community, at times Palmyrenes may have been tempted to exploit their position at Dura to advantage, perhaps being perceived as very demanding patrons and overbearing neighbours.

The presence of other groups also serves to underline the reality that community relations were far more complex than any simple binary Durene civilian-Roman military opposition. For example, what of Dura's Jewish community? They seem to have arrived in the Roman period, and established their synagogue in the civil town. Did they keep themselves largely separate from the gentiles of both base and city, except for economic exchanges? Their now-famous synagogue suggests otherwise (Fig. 14.3). As Kaizer has noted, its 'extraordinary decoration...—illustrating the Hebrew Scriptures in sharp contrast to the prescription of the Ten Commandments—must be clear evidence that Jewish communities living in the periphery of the Roman world and far away from their homeland had much more leeway in the way they gave expression to the religion than any notion of an orthodox Judaism would suggest' (Fig. 14.4; Kaizer

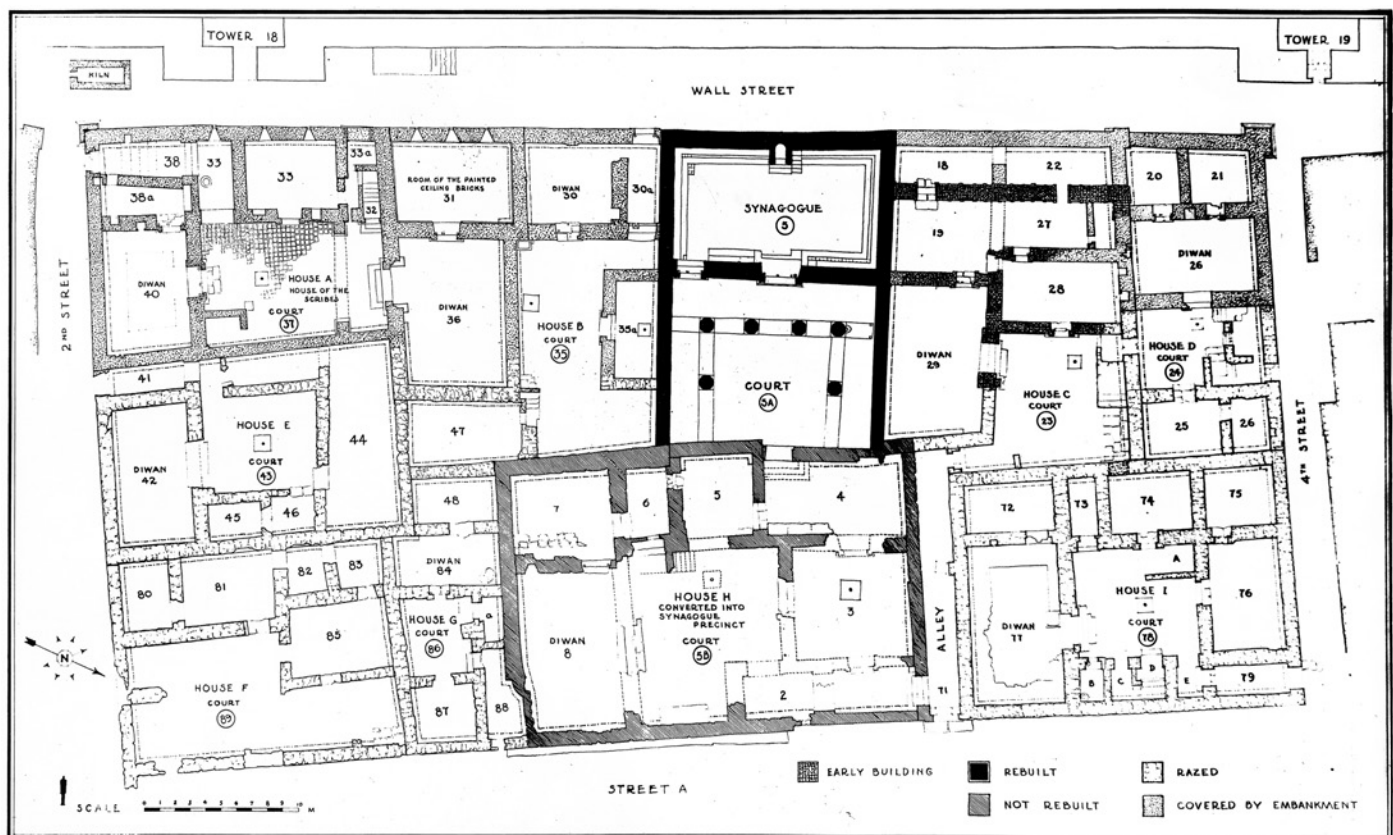


Fig. 14.3. Plan of block L7 showing the developed synagogue across the middle of the block, which it shared with the Roman soldiers in the House of the Scribes.



Fig. 14.4. The synagogue W wall shortly after its exposure.

2017, 95). It again suggests an intriguing degree of cultural interaction with the life of the civil town. Even deeper integration is also possible: for there is evidence that, precisely at the period of Dura's garrison, some Jews, especially from more 'liberal' backgrounds like those indicated by the painted synagogue, served as Roman *milites* (Schoenfeld 2006; Roth 2007). I suspect there were Jewish soldiers in Dura's garrison as Rosenfeld and Potchebutzky have argued, albeit as members of the attested contingents, without needing to envisage any separate Jewish unit (Rosenfeld and Potchebutzky 2009, 207; Fig. 14.5).

And what was the status and position of Dura's celebrated Christian community (Fig. 14.6)? They were hardly low-profile, when their house-church was directly overlooked by city wall Tower 17, presumably frequented by soldiers (Fig. 14.7). ROTAS/SATOR squares in E7-W14 in the military compound of the Temple of Azzanathkona (Fig. 5.10) left Welles in no doubt that some of the soldiers were

Christians (Welles 1951, 268), which Kaizer also concludes (Kaizer Forthcoming). While the Christian association of these acrostic squares remains debated, there is nothing inherently implausible about Christian soldiers in the garrison; it may well be that Dura's Christian congregation arrived as members of the extended military community and, operating and no doubt proselytizing in the civil town, might itself be seen as another symptom and modest instrument of cultural integration.

The development of military-civil relations at Dura, then, may certainly be portrayed in rosy shades of genuine emergent *concordia/homonoia*, extending to real integration between the communities at multiple levels, in line with the picture of Syrian garrison cities painted by Stoll. On the other hand, all this could also be viewed as potentially a creeping, insidious takeover of Dura by overweening Roman military newcomers and Palmyrene opportunists—groups which were also strongly overlapping. A process symbolized by

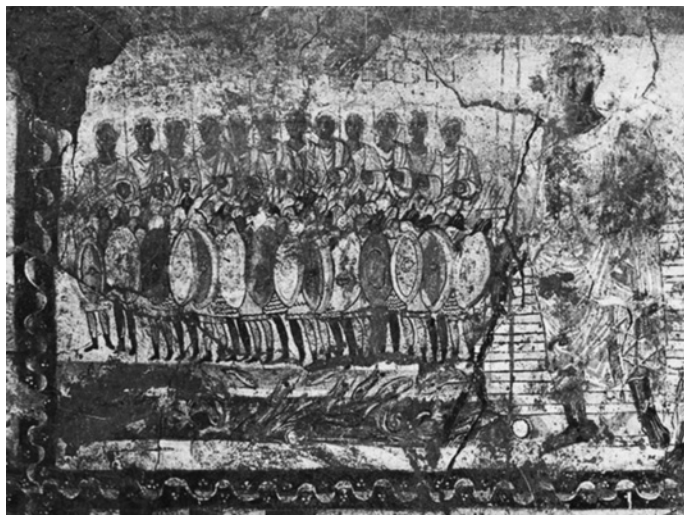


Fig. 14.5. Detail of the paintings on the W wall of the synagogue, showing Moses parting the Red Sea, and the Twelve Tribes of Israel crossing. The Israelites with their long trousers and oval shields look strongly like the Roman soldiers of Dura, even more so as each tribe is led by a standard-bearer holding a *vexillum* aloft.

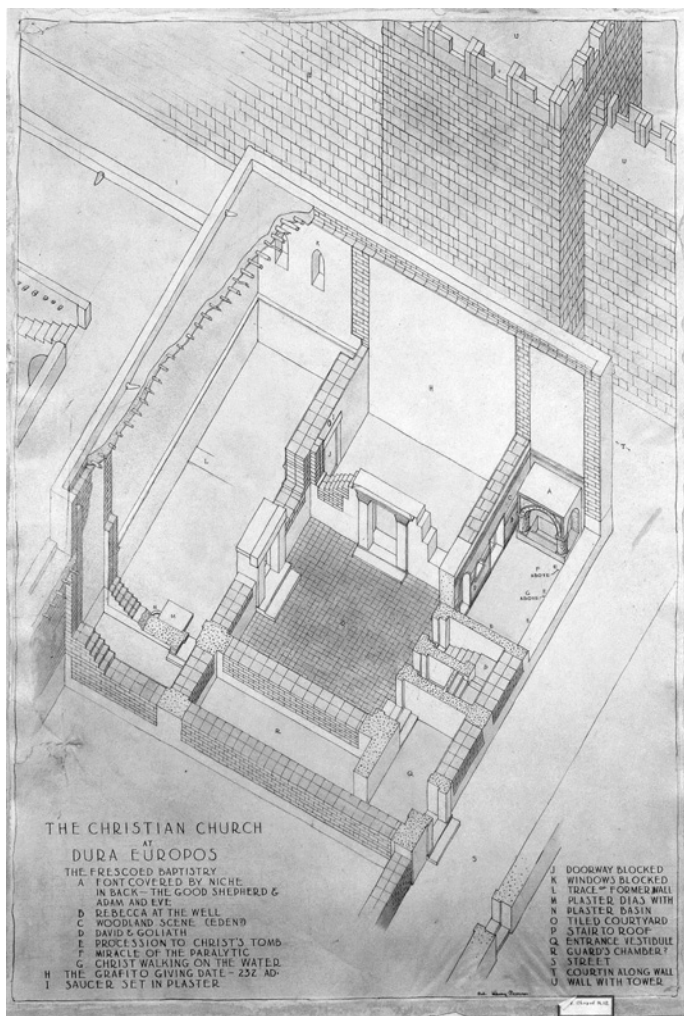


Fig. 14.6. Axonometric reconstruction by Henry Pearson of the Christian building, with vaulted baptistry at R.

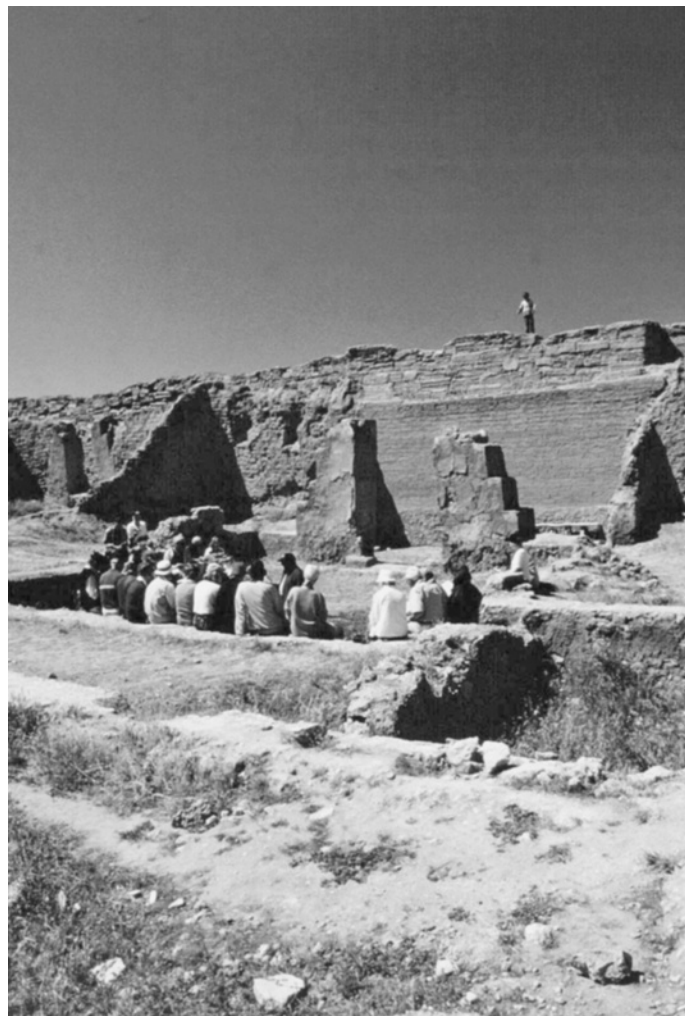


Fig. 14.7. A party of German Lutherans singing in the Christian chapel (partly reconstructed) on Easter Sunday 2001. The figure on the skyline stands on Tower 17, showing the proximity of the chapel to a presumed Roman military post. There was nothing clandestine about the Christian sanctuary.

the city receiving the title of Roman *colonia* could be considered literally a disguised colonization, perhaps seen in the evolving meaning of that enigmatic term, *Europaioi*.

New Europaioi?

We have seen how the dominant class of the Arsacid era, the old *Europaioi* who it seems at least presented themselves as Hellenes descended from the original Macedonian and Greek soldier-settlers of Seleucid times, fade from the scene during the Roman period. But at the same time there is reason to think that the Roman garrison troops of the city also came to refer to themselves in Greek, and became more widely known, as *Europaioi*. This was originally proposed by Speidel, who suggested that one of the damaged *principia* inscriptions used the term in Latin transliteration, and that rather than literally European troops, it was Dura's garrison who constituted those '*Europaioi*' recorded by Dio as Severus'

only really effective forces in the harsh conditions of his siege of Hatra in 198–9 (Cassius Dio 75.12.4–5; Speidel, M. P. 1984). Speidel's hypothesis was attacked (Kennedy 1986), although others have accepted it (e.g. Stoll 2001, 379). It certainly gains credence from the review of the evidence for Dura's garrison, which now looks to have been a much larger force at that time than hitherto realized, comprising a specialized 'steppe warfare brigade' ideally suited to operations round Hatra. Indeed, it is clear that by the Severan period it was becoming increasingly common for bodies of imperial troops to be known by the name of their garrison station in this way. Syrian units in Dacia provide examples, like the *numerus Palmyrenorum Tibiscensium* named after its station of Tibiscum (Haynes 2013, 379), and the *numerus Syrorum Malvensium*, 'a Syrian auxiliary unit named after its Dacian headquarters' (Haynes 2013, 125; *CIL* 8.9381 = *ILS* 2763). It was a useful way of identifying contingents, but was also an important element in implementing the ideology of *concordia*, and fostering mutual identification between urban garrisons and townsfolk: e.g. on coins minted at Bostra, the term *Bostreni* refers to both the city population and the soldiers of the local garrison unit, *legio III Cyrenaica* (Stoll 2001, 213). A similar process, it seems, occurred at Dura.

Did the old *Europaioi* fade from sight, then, because their self-label for their hitherto exclusive citizenship, and the use of Greek names which went with it, ceased to be a mark of distinction after, first, all the common soldiers at Dura also appropriated the name? Already in AD 180 civilian *Europaioi* were recorded with non-Greek names (*P. Dura* 17; Andrade 2013, 233). Then in 212 all free people in the city became Roman citizens, trumping the local civic citizenship; and perhaps the decisive blow to the old category fell—arguably around the same time—when the label was formally extended to the entire civil population as Dura became the

'colonia of the *Europaioi*' (*P. Dura* 32). The old term and category '*Europaioi*' had therefore lost its special local meaning, distinctiveness, and cachet.

However, if the term was abandoned as an exclusive label for Dura's civic elite, it did now embrace both city and garrison. The ruling elites, both military and civic, would have presented themselves as leaders of the bipartite community of *Europaioi*—even if the bulk of Aramaic-speaking townsfolk and indeed military dependants, and many soldiers themselves, also always spoke of the city as 'Dura'.

So, while some of the families of old *Europaioi* might, like the Lysiads, have been actively removed by the Roman authorities, and others with particularly close Arsacid connections may have emigrated to Parthian territory soon after c.165, Dura's Roman-era civic elite could still have remained in part the descendants of the established urban aristocracy, albeit alongside influential 'new men', including military veterans and civilians from Dura's other communities, and resident Palmyrenes. This elite now expressed its distinction from the bulk of the new civilian *Europaioi* through their membership of the *boule* and emergent status as *honestiores*.

If so, in its final decades Dura in a sense came full-circle. The old *Europaioi* had begun as a Hellenistic colonial implantation established by force of arms, comprising a fortified outpost of soldiers of a western empire established on the Euphrates. This military colony evolved into a civil town under the Arsacids; but under Roman hegemony qualitatively and literally evolved once more into a military colony of new, redefined *Europaioi* incorporating incomers as well as local aristocrats and subalterns, before in its very final years Dura was shorn of its civilian population and reverted at the last to a fortified outpost manned by soldiers of a western empire, as it faced its Nemesis.

Conclusion

Chiaroscuro

This project has explored the archaeology of Dura's imperial Roman military base, and also considered other material traces of the presence of soldiers in the city, e.g. at the Palmyrene Gate and creation of urban baths. As such it here synthesizes the archaeological evidence of a literal quarter (or more) of this globally important archaeological site. It offers an example of the still under-appreciated potential of 'legacy data sets' and archival archaeology, and of resurveying 'old sites', to generate significant new knowledge, making best use of limited resources. It also considers 'legacy ideas' as well as more recent publications to generate new understandings of garrison, base, and city. I hope that this volume will further constitute a useful contribution to the study of the Roman armies, and the soldiers in their ranks. I also hope that it will establish that the military aspect is a vital part of the story of Dura itself, especially for the Roman era, and that the military base and the people who lived in it cannot be treated as literally and figuratively peripheral to Durene studies.

The foregoing presents what has been a visually led project, and also one of space and of movement within it. It was conducted through a combination of examining the largely image-based archival records of the Yale/French Academy expedition and direct observation of the fabric of the city, especially of the remains exposed by the original excavations as they were between 2005 and 2010. It has also generated entirely new data expanding the picture through geophysical prospection of the unexcavated portions of the base area and vicinity. Physically moving around the topography of the former city and, where it was still partially upstanding, through some of its spaces, provided many key insights. Others derived from considering plans, aerial photographs, magnetometry plots, and recent satellite images. Not least, interpretations arose from generating the new drawings, largely plans, featured in this book. Creating them was as central to the research process as note-taking: in the field it involved the core reflexive activity of working from observations and measurements of features on the ground to drawings, photographs, and textual records, and then referring back to the physical remains to verify and interpret significant spatial relations, alignments, and discontinuities.

Synthesizing the local plans into regional and city-wide images has literally produced new pictures of the base and city, in the form of the two-dimensional plan of the military base, and a three-dimensional eagle's-eye-view reconstruction. The new overall base plan (Pl. XXII) emphasizes just how much of the city was taken over by the garrison, especially if the hypothesis is correct that the military took over the whole of the N branch of the inner wadi, including its W slopes overlooking the *campus*. Adding simple colour contrasts also strikingly picks out the swathe of service spaces and administrative and entertainment facilities between F and G Sts which bisect the base zone on the plateau.

The perspective reconstruction of the base from the N, with civil town behind, suggests the appearance of Dura's urban landscape as it may have looked in the second quarter of the third century AD (Pl. XXV). It was in part inspired by the striking ink rendering of Roman-era Dura by N. C. Andrews, probably drawn in the 1940s (Fig. 1.6). Andrews's fine line drawing, an aerial view of the city in the Roman era from the SE, has many virtues, not least picking out what was known from what was inferred through use of heavier line weight and light hatching. However, it is now seen to contain significant inaccuracies, notably with regard to the military part of the inner wadi. Its perspective also reasonably emphasizes the civil town, with the military zone in the background. Given my own long interest in reconstruction drawings, I wanted to create some of my own. Limitations of time precluded creation of more than one full 3D scene. Inspired by Andrews's artwork, which in turn was a sequel to Pearson's similar scene imagining Hellenistic Dura (Rostovtzeff 1938, fig. 5: archive drawing GEN P. N.12), I opted for an aerial view, but to fit with the metaphorical perspective of the book, present the site from the N, literally foregrounding the base in the context of the civil town beyond. A fine French Air Force photograph in the expedition archive offered an ideal angle (Yale-2184; Fig. 1.3), so this was used as the base for the projection. The image was originally intended to be a simple outline drawing to echo the style of the rest of the book and also to resonate with Andrews's drawing. However, I could not resist availability of the option of colour, easily added as

layers in Adobe Illustrator. I decided to keep this as simple as possible by just using flat blocks of tints. The result has a somewhat sub-‘Hergé’s adventures of Tintin’ quality, but as with the overall plan, the additional dimension of colour adds valuable contrast to distinctions in a highly complex scene.

Like all such reconstructions, this includes a degree of inference, ranging from informed guesswork (Dura clearly had a river port, long since erased by the Euphrates) to conjecture (e.g. while the Citadel likely originally had a tower overlooking the River Gate matching that at its northernmost point, its exact position, and above all whether it still stood in the Roman era or had already fallen into the river, are unknown).

The chosen viewpoint has the downside of portraying the base from behind, so to speak, in that the orientation of the *principia* underlines that the base faced the city. The drawing also has some known shortcomings: the house roof forms are too regular, and according to Baird (pers. comm.), a larger proportion of them, at least in the civil town, likely had second storeys than shown here, but which and how many is hard to determine. I have also tried to give it something of a visual key by giving major structures the white tone of fresh *djuss* plaster, while leaving the houses dust-faded, where many would have been freshly plastered, at least in the civil town. Nevertheless, going to the third dimension in such a drawing itself emphasizes a number of points more clearly than the flat plan, notably the apparently continuous sweep of open space around the Temple of Bêl in the right foreground. Also even more strongly that the 2D plan, this emphasizes how the linear grouping of the E3/E4 bathing facility, the great E4 house and the F3 bath/amphitheatre formed a swathe separating the base zone into two parts.

To return from the literal to the metaphorical, textual picture of Dura drawn from the project, its results underline the powerful yet still underdeveloped potential of Dura’s archaeological evidence to contribute to telling the story of the ancient city, providing testimony independent of the equally important textual record—testimony which is capable of invalidating some received ideas about Dura’s history, of corroborating others, and of generating new ones. The archaeological picture offers a new starting point for considering Dura in its wider context, of the region, of competing empires, and of the evolving ideas and understandings of the multiple disciplines which seek to study the era.

Taking into account multiple groups of actors, complex cross-cutting historical processes and radically shifting regional dynamics mean that we need to move beyond the broad-brush, or perhaps unduly black-and-white sketches of Rostovtzeff and others, to more detailed, nuanced, and subtly gradated images which better capture and express an immensely complex and colourful reality. Rostovtzeff’s and Stoll’s apparently contradictory received visions can both help inform a new portrayal of the city and its relationship with base and garrison. To take this project’s visual metaphor to its conclusion, specifically in painterly terms, in a new

visualization of the Roman military community and its impact on Dura there is actually space on the canvas for—to caricature—some of Rostovtzeff’s and Welles’s dark shades, which almost evoke Goya’s *Disasters of War* prints if not Hieronymus Bosch’s vision of Hell, alongside some of Stoll’s, Reeve’s, and Sommer’s brighter tones, which perhaps tend more towards Leighton’s or Alma-Tadema’s sun-drenched admiring evocations of Greco-Roman urban civilization. Rather the visualization I propose here is characterized by juxtapositions of light and dark analogous to the *chiaroscuro* of the Italian Renaissance—which encompassed the beauty of Da Vinci’s portraits and the religious piety of his Madonnas, but equally the violence of Caravaggio’s multiple paintings of beheadings. Acknowledging the presence of deep contrasts in the same scene better reflects the reality of human societies in general, and especially of those exhibiting the great extremes of power and privilege, disenfranchisement and oppression, characterizing life in garrison cities like Dura-Europos under the Roman empire, as the second century gave way to the third—which then brought the additional anxiety of growing threat of foreign attack.

To encapsulate the new picture of Dura’s imperial garrison and base—in early twenty-first-century terms, to offer the ‘take-away message’—the evidence suggests that: both garrison and base became substantial and important much earlier in Dura’s Roman period than hitherto thought, i.e. in the later second century, not the third; both base and military population were significantly even larger than hitherto realized; and the contingents of imperial soldiers possessed numerous, hitherto little-noticed dependants, the whole comprising an ‘extended military community’ comparable in scale with the civil population. All this amounted to a virtual city within a city.

It is important, however, to reiterate that this new picture of Dura’s Roman military aspect—in practice like earlier ones such as Rostovtzeff’s 1938 envisioning—employs cumulative arguments, and probabilistic interpretations of archaeological information, albeit triangulating with textual and other information from Dura and beyond. It represents the most complete, internally consistent, and plausible interpretation of the evidence I can construct on the basis of current knowledge and ideas, but of course cannot claim to be definitive. Alternative readings of at least aspects of the evidence are certainly possible. However, if its main, general conclusions are accepted, it will require fundamental rewriting of our understanding of Dura’s best-attested phase: its final, Roman-ruled period. This will take time and, as ever with the multi-dimensional riches of Dura’s data, will need to be a collective effort. Undoubtedly, other specialists will disagree with some or all of the interpretations and conclusions presented here, and may consider them misguided. As we have seen, all perspectives on the past are inevitably partial, as none of us can fully master all the evidence in all its dimensions, material, palaeographic, and linguistic.

We are of course obliged to critique perceived biases and shortcomings in the works of others. It is now thought that, at the outset of research on the city and its imperial military presence, Rostovtzeff effectively ignored the less- or un-Hellenized bulk of Dura's population, and back-projected onto the city and its Roman garrison his own experiences of the impact of the Red Army on Russia's bourgeoisie from 1917 onwards. Welles's similar interpretations come across today as reflecting mid-twentieth-century white American racism. In much more recent scholarship, I concur with Stoll that Pollard was mistaken about military-civilian *Apartheid* at Dura, based I believe on misreading of the archaeological evidence. But it also seems to me that Stoll's view of military-civilian relations in such garrison cities is, largely implicitly, too closely and unquestioningly aligned with the interests and perspectives of the imperial, military, and civic elites responsible for creating most of the data he studied. His view of harmony and integration looks implausibly rosy, and was echoed by Reeves, whose exhortation that we should not 'look for conflict' in places like Dura, as Rostovtzeff had done, appears unrealistic given what we know more generally of the dynamics of region and era. Similar critique might be offered of Ruffing's work, as too narrowly focused on economics to the exclusion of the human consequences. It could be interpreted as exhibiting a bias comparable to Rostovtzeff's and as equally a product of its time, reflecting complacent early twenty-first-century attitudes to the consequences of economic globalization, focusing on the benefits of change in the Roman period where, especially in such slave-owning societies, the costs to many are likely to have been stark.

Yet such critique simply qualifies, but does not detract from, the reality that my work owes an enormous debt to the efforts of all these scholars, and many other besides—not least Pierre Leriche—for the starting-points, insights, and ideas with which to work that they have provided. Hence

Rostovtzeff and Welles, besides, with their colleagues, creating the Dura data-set in the first place, had fundamental points to make about the inclination of Roman troops to display arrogant brutality towards civilians, especially in the middle imperial period, with implications for Dura of large numbers of *milites* living in the town. Pollard provided the first detailed and contextualized reconsideration of the Dura case in recent times, helping frame the present project. Stoll and Reeves were clearly right about imperial policy of promoting *concordia*, and seeking symbiosis and integration between cities and their garrisons—a critically important contribution, as were Sommer's and Ruffing's views on the likely economic impact of the presence of the garrison, while Leriche has fundamentally changed our understanding of Hellenistic and Arsacid-era Dura, the *status quo ante* for the present project.

In studying a subject like ancient Dura, we can and doubtless will disagree amongst ourselves; indeed, within limits, this is actively useful in drawing the lines of debate which drive scholarship forward. However, where we disagree we are obliged to explain why. It is not constructive to dismiss in print others' interpretations of aspects of Dura's record as 'speculation' (Leriche et al. 2011, 27), without even citing the works concerned (from the context clearly directed at Grenet 1988 and James 2011b), or providing any specific evidence or argument for why they may be wrong. It is even more lamentable when disagreements escalate into permanent rifts, as has too often happened in recent Dura scholarship. Experience of academic hostility in the early twentieth century led the Belgian pioneer of Iberian archaeology Louis Siret to comment bitterly: '*Ce n'est pas une science, l'archéologie, c'est un combat à mort*' (Brenan 1963, 260). If we are to continue to improve our understanding of Dura-Europos and Syria in the Hellenistic, Arsacid, Roman, and Sasanian eras, we need to avoid fragmentation into antagonistic scholarly camps. There is more than enough real conflict in the world already.

Epilogue and Prospect

THE SECOND DESTRUCTION OF DURA-EUROPOS

Since Syria's descent into civil and proxy war of appalling savagery, like so much of its living infrastructure and cultural heritage, Dura has been devastated. Initially, in 2012, the expedition house was systematically looted and stripped of everything including doors and window frames. Satellite imagery shows that then, at some time between July 2012 and April 2014, a campaign of systematic looting of the unexcavated portions of the city interior and the adjacent necropolis was undertaken, on an industrial scale (Fig. 16.1; Casana 2015, 147). The result was hundreds of huge holes all over the city, which at first glance looks like it has been subjected to intensive artillery bombardment—except that the holes do not impinge on the road lines, kept clear to allow vehicles in and out. The destruction is so devastating that it is no exaggeration to call it the second destruction of Dura-Europos. And if it did not involve the slaughter which accompanied the first destruction of the city c.256, it seems this new onslaught was not bloodless. The region found itself in the midst of Daesh's self-proclaimed territorial 'Caliphate', and it has been reported that, on taking control of the ancient city and surrounding villages, they murdered the site guardian to make clear who was now in charge.

Most of the looting comprised a highly organized professional criminal enterprise requiring a major, sustained logistics effort; at its height in 2014 up to 400 people were involved, using mechanical excavators and metal detectors, concentrating especially on easily saleable coins. It was sanctioned by Daesh, which reportedly took 60 per cent of the proceeds from sales on the illicit antiquities market to fund their war (Brodie and Isber 2018, 77–9). In part, the looting was likely conducted by local people, under direct duress from Daesh or others, or simply finding themselves desperate to feed their families in dangerous times. In such circumstances, whether in the second, third, or twenty-first centuries, people do what they can, and do what they must, to survive. At the time of writing (November 2018), the site lies in a zone still contested by remnants of Daesh, and is likely to remain too dangerous to work at for the foreseeable future.

When the British-commanded Indian soldiers dug the very first trenches at Dura in 1920 in the midst of an earlier

insurgency, they were confronted by a vivid image of Roman soldiers of *cohors XX Palmyrenorum* gazing out at the newcomers, with hands raised as if in greeting (Pl. I). Before the MFSED field team pulled out of Dura in 2011, among the last new discoveries they made in the city was yet another temple (p. 195). By an uncanny coincidence, the trench produced fragments of paintings evidently from further military sacrificial scenes like the Terentius mural, again depicting ranks of soldiers with hands raised in salute—or as though in farewell to the end of the second sustained period of field research at the site (Fig. 16.2). It is fervently to be hoped that this will not mark the end of ground exploration at this remarkable place, and that, even if the lunar landscape

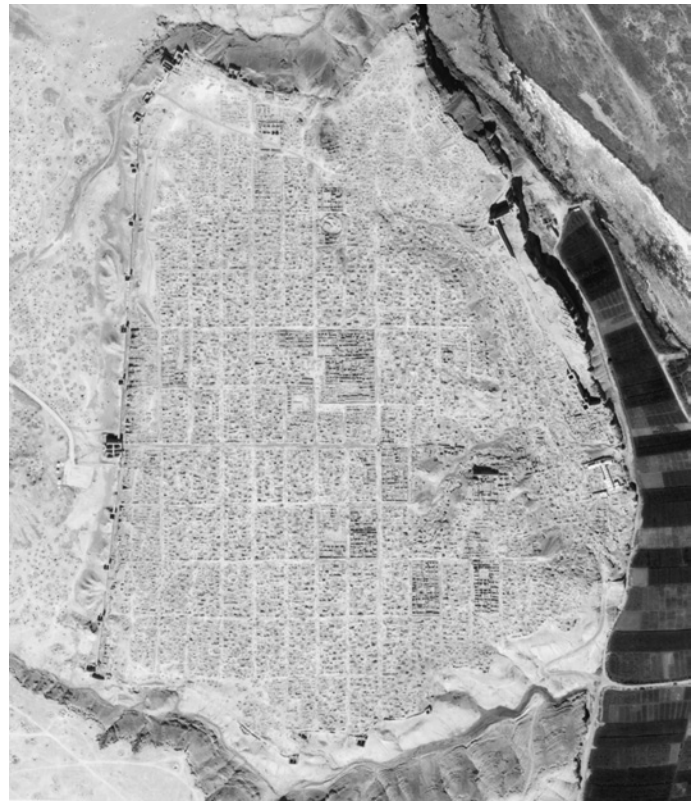


Fig. 16.1. Satellite image of 4 November 2015, showing Dura after its devastation by looters (compare Pl. VII). Image (c) Google Earth and Digital Globe, 2017.



Fig. 16.2. *Ave atque vale?* One of the fragments of paintings resembling the Terentius scene, found by MFSED in the newly identified Military Zeus Temple in 2011. Among the very last discoveries made at the site as Syria was engulfed in war, they depict *milites* of Dura's garrison with hands raised in salute. Doubtless as in the Terentius scene they were witnessing a sacrifice, but in the context of their discovery, these figures appear to be waving farewell as Dura faced its second destruction.

of spoil tips left by the plunderers creates a vast new obstacle to future research on top of the active destruction caused, something yet remains on the ground of Hellenistic, Arsacid, and Roman-ruled Dura-Europos/Salhiyeh for future generations of scholars to study.

At the very least, the tragic fate of Syria, its people, and their heritage exemplified by the ruined city at Salhiyeh, underline the value of international projects, archives, museums, and indeed publications which, as Jefferson wrote after another terrible war, help place records of the human past 'beyond the reach of accident' (p. xlii)—or malice.

PROSPECT

Even if very much should still survive at the site to be studied, at the time of writing Syria's fragmented, unstable,

and violent present makes any possibility of further field-work at Dura seem very remote—and indeed in the midst of such a vast human tragedy, potentially looks a bizarre inversion of priorities. However, it is fervently to be hoped that eventually peace and security will return to the region, and the huge task of rebuilding society, economy, and infrastructure in Syria will begin. The anticipated international relief effort will, at least long-term, include measures to restore as far as possible Syria's ravaged cultural heritage—and local people will need employment. But this is going to be the work of decades. Fully assessing on the ground the devastation caused by looting will clearly be the first priority.

Meantime there is much further scope for research on the basis of the data already collected for the military base project, which forms but a small part of the riches of information deriving from the collective efforts of several generations of scholars from many countries—and of the technical specialists, curators, and officials who have supported them, and not least of Syrian workers who shifted so many thousands of tons of earth to reveal the ancient city.

Most immediately from the present project, there is the task of completing and making available the accompanying archival resource, which documents the state of the remains in the military quarter before the devastation of the Syrian civil war. Also, prioritizing what seem to me to be the most important and far-reaching implications of the base study—understanding how it was fitted into the city, and what this then says about military–civilian interactions—meant that limitations of time and publication space squeezed out full comparative consideration of Dura as our best representative of a different kind of Roman military base: urban rather than 'green-field'. That, too, remains to be done. Above all, as we have seen, will be fully working through the implications of the conclusions and hypotheses offered here regarding the interactions of military base and imperial garrison with the city and townsfolk of Dura. This encompassed everyone from aristocrats like the military tribune Julius Terentius and his wife Aurelia Arria, and the civic *strategos* Septimios Aurelios Lysias and his family, to the native Durene centurion Danymus; the residents of the House of the Roman Scribes, both male like the military clerk Heliodorus, and female like Thaamare; the artisans, traders, and shoppers in the marketplace, the congregations in the Temple of Azzanathkona, the synagogue and house church, in all of which soldiers and civilians likely worshipped together; the slaves who operated the water-pumps feeding the military and urban baths, and the prostitutes in the military brothel; and people like the legionary Antiochus and Amimma, 'a woman of Dura', whose marriage may have been destroyed by the early stages of the war which soon after consumed the city. Study of the Roman military presence indeed shows that:

Dura is... much more than a 'Pompeii of the East'—it is a laboratory for all those scholars dealing with the Roman world's stunning diversity. Sommer, M. 2016, 67

IMAGE CREDITS

Abbreviations

MFSED = Courtesy la Mission Franco-Syrienne d'Europos-Doura.

SJ = Simon James.

YUAG = Courtesy Yale University Art Gallery, Dura-Europos collection.

Plates

- I. From Cumont 1923, pl. 1.
- II. SJ 2016-3206.
- III. SJ 2008-7021.
- IV. SJ 7 Apr 2005.
- V. SJ 2007-4695.
- VI. After map sheet provided in *PR 9.1*.
- VII. Imagery DigitalGlobe, Inc.
- VIII. SJ, magnetometry data superimposed on a photomosaic of YUAG Z3-Z6, with thanks to Kris Strutt and Christoph Benech.
- IX. SJ 2010-0626.
- X. Top: SJ 2008-2742-4; bottom: SJ 2008-2729-34.
- XI. SJ 2016-3148.
- XII. Photomosaic of SJ 2007-4689-90.
- XIII. Photomosaic of SJ 2010-0383-4.
- XIV. Photomosaic of SJ 2010-0356-9.
- XV. SJ 2007-3514.
- XVI. SJ 2007-3479.
- XVII. Photomosaic of SJ 2007-3857-60.
- XVIII. YUAG, unnumbered site card.
- XIX. SJ 2010-0211 and 0212.
- XX. SJ 2008-7016-8.
- XXI. SJ 2010-9152-3.
- XXII. SJ.
- XXIII. SJ.
- XXIV. SJ.
- XXV. SJ.

Figures

- 1.1 SJ after MFSED with modifications and additions.
- 1.2 YUAG Z2.
- 1.3 YUAG Yale-2184.
- 1.4 YUAG Y795.
- 1.5 YUAG Y1.
- 1.6 YUAG archive drawing Gen P N.13.
- 1.7 Courtesy of the Oriental Institute of the University of Chicago, image P. 7371—N. 3811.
- 1.8 YUAG Fx42.
- 1.9 YUAG G852.
- 1.10 SJ 2010-8897.
- 1.11 SJ.
- 1.12 Photomosaic of YUAG Z3-Z6.

- 1.13 YUAG archive drawing E7 N.1.
- 1.14 Yale archive, unnumbered.
- 1.15 Photomosaic of YUAG K658 and K660.
- 2.1 a. YUAG C137; d. Unnumbered YUAG print; b., c., e., f. YUAG Hopkins family album.
- 2.2 Top L: YUAG Fxiii25; top R: unnumbered YUAG album page from 1928; bottom L: unnumbered YUAG print; bottom R: YUAG Z92.
- 3.1 L: SJ 19 Apr 2005; R: SJ 2010-0956.
- 3.2 SJ.
- 3.3 SJ images taken between 2006 and 2016.
- 3.4 SJ 2007-4756.
- 3.5 SJ 2008-7033 and 2010-0926.
- 4.1 L: SJ 10 April 2005, R: SJ 2008-6982.
- 4.2 YUAG K451.
- 5.1 SJ.
- 5.2 YUAG archive drawing 'Palm Gods NW Angle N.5'.
- 5.3 SJ.
- 5.4 Top, mosaic of YUAG E310/E311; bottom, detail of YUAG K43.
- 5.5 SJ.
- 5.6 SJ.
- 5.7 YUAG archive drawing E7 N.12(1).
- 5.8 YUAG archive drawing E7 N.12(2).
- 5.9 YUAG E310 and E311.
- 5.10 YUAG, individual images credited in the graphic.
- 5.11 YUAG Dam34.
- 5.12 SJ.
- 5.13 YUAG E35 and E36.
- 5.14 YUAG archive drawing E7 N.5.
- 5.15 YUAG archive drawing E7 N.4.
- 5.16 YUAG i68 and SJ 2008-2555.
- 5.17 YUAG E72.
- 5.18 SJ 2010-0355.
- 5.19 YUAG i51.
- 5.20 YUAG Fx55.
- 5.21 YUAG E42.
- 5.22 a.-c. YUAG, unnumbered file card drawings.
- 5.23 YUAG E74.
- 5.24 YUAG i49.
- 5.25 YUAG i30.
- 5.26 SJ.
- 5.27 SJ 11 April 2005.
- 5.28 SJ.
- 5.29 SJ.
- 5.30 YUAG Y582.
- 5.31 a. photomosaic of SJ 2010-0607-10; b. YUAG B263j; c. unnumbered YUAG print; d. YUAG B263c; e. YUAG B263d; f. YUAG B263f; g. YUAG Fxii50; h. YUAG B152.
- 5.32 SJ.
- 5.33 SJ 2010-0960 and 0961.
- 5.34 SJ 2010-0525 and 0532.
- 5.35 SJ.
- 5.36 SJ.
- 5.37 SJ.
- 5.38 a. YUAG Fxiii27; b. YUAG Fxiii55; c. YUAG Fiii98; d. YUAG Fb84; e. YUAG fii75.
- 5.39 a. SJ 2010-0465; b. SJ 2007-4344; c. SJ 2007-4332.

- 5.40 SJ.
- 5.41 YUAG Y11.
- 5.42 YUAG Y11.
- 5.43 a. SJ 2010-0458; b. SJ 2010-0280; c. photomosaic of SJ 2008-2224-6.
- 5.44 YUAG Dam31.
- 5.45 a. YUAG Fxi50; b. YUAG Fxi6; c. YUAG Fxiii50; d. YUAG Fxi15; e. YUAG Fxiii60; f. YUAG Fiv63.
- 5.46 SJ.
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- 5.48 a. YUAG Fxiii29; b. YUAG Fx41; c. YUAG Fxii11; d. YUAG Fx24.
- 5.49 SJ.
- 5.50 Unnumbered YUAG archive drawing.
- 5.51 YUAG archive drawing Mithraeum N.4.
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- 5.53 YUAG archive drawing Mithraeum N.2.
- 5.54 YUAG Yale-1192.
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- 5.57 Detail of YUAG K312.
- 5.58 L: YUAG G727B; R: YUAG K179.
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- 5.60 SJ 18 April 2005.
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- 5.64 Details from unnumbered YUAG notebook.
- 5.65 SJ 2007-4087 with detail from unnumbered YUAG notebook.
- 5.66 SJ 2016-2814.
- 5.67 Top, SJ 2007-4690; centre and bottom, YUAG K88.
- 5.68 Top, SJ 2007-4690; centre and bottom, YUAG K88.
- 5.69 SJ.
- 5.70 SJ.
- 5.71 SJ.
- 6.1 SJ.
- 6.2 SJ.
- 6.3 Top: YUAG I348; bottom: photomosaic of SJ 2010-9728-9.
- 6.4 YUAG i152.
- 6.5 YUAG archive drawing Dux Palace N.2.
- 6.6 a. YUAG i331; b. YUAG i327; c. YUAG i343; d. YUAG i342.
- 6.7 Top and middle: YUAG Z5; bottom: YUAG Y795.
- 6.8 SJ 2010-9549.
- 6.9 Graphic by SJ, based on a detail of YUAG Y795.
- 6.10 SJ 2005.
- 6.11 L: SJ 2010-0098; R: SJ 2010-0086.
- 6.12 SJ 2010-9597.
- 6.13 SJ 2010-9870.
- 6.14 SJ.
- 6.15 a. SJ 2010-9660; b. SJ 2010-9688; c. YUAG i74; d. YUAG, i330; e. YUAG i332.
- 6.16 Photomosaic of SJ 2008-3234-6.
- 6.17 SJ.
- 6.18 AA = YUAG archive drawing Dol. N.4, BB = YUAG archive drawing Dol. N.3.
- 6.19 YUAG i353.
- 6.20 L: YUAG i159; R: YUAG i158.
- 6.21 YUAG i354.

- 6.22 YUAG i216.
- 7.1 SJ.
- 7.2 SJ.
- 7.3 YUAG K390.
- 7.4 a. YUAG B91; b. YUAG B92; c. SJ 2008-2363; d. YUAG B281; e. YUAG B216.
- 7.5 YUAG B283.
- 7.6 SJ 2008-2342.
- 7.7 SJ 2008-2068 .
- 7.8 L: MFSED; R: SJ after Jean Humbert, MFSED.
- 7.9 a. YUAG Z4, b. YUAG Z4 and SJ magnetometry imagery; c. Imagery DigitalGlobe, Inc.
- 7.10 YUAG archive drawing Citadel N.2.
- 7.11 YUAG K663.
- 7.12 YUAG Z4 (L) and Y796 (R).
- 7.13 YUAG Y795.
- 7.14 Photomosaic of YUAG Fx85-88 and 93.
- 7.15 YUAG K671.
- 7.16 YUAG Archive drawings Citadel N.2 and N.3.
- 7.17 L, YUAG K400; centre, YUAG K401, R, YUAG K404.
- 7.18 Top L, YUAG E325; top R, YUAG K360; Bottom L, YUAG K371; bottom R, YUAG E354.
- 7.19 Top, YUAG K388, bottom, YUAG Fxi10.
- 7.20 Top, YUAG Fxiii84; bottom, YUAG K361.
- 7.21 YUAG 1938.4922~01.
- 7.22 a. YUAG K370; b. YUAG Fx31; c. YUAG Fxi35; d. YUAG K372.
- 7.23 SJ.
- 7.24 a. YUAG K663; b. Image courtesy Jennifer Baird; c. YUAG Fx37.
- 8.1 SJ.
- 8.2 SJ 8 April 2005.
- 8.3 Top, YUAG Fx88; bottom, YUAG Fix74.
- 8.4 a. SJ 2010-8936; b. YUAG Fxii70; c. YUAG Fx40.
- 8.5 a. YUAG Fiv20; b. YUAG Fxii61; c. YUAG Ff15.
- 8.6 a. YUAG Fvi95; b. YUAG Fvi96; c. Fiv4; d. YUAG Fiv3; e. YUAG Fiv17; f. YUAG Fvi99.
- 8.7 a. YUAG Fix60; b. YUAG Fix61; c. YUAG Fix57; d. YUAG Fix62.
- 8.8 L: YUAG Fxii89.
- 8.9 L: YUAG Fix36; R: YUAG Fix50.
- 8.10 Composite of YUAG Fiv15 and Fiv9.
- 8.11 SJ.
- 8.12 a. YUAG D107; b. YUAG Fix68; c. YUAG C93; d. YUAG c107.
- 8.13 a. YUAG Fxiii18; b. YUAG Fxiii42.
- 8.14 Details from YUAG archive drawing Bath N.12.
- 8.15 Unnumbered YUAG archive print.
- 8.16 SJ, based on YUAG archive drawing L4 Block N.2.
- 8.17 YUAG archive drawing L.F. N.12.
- 8.18 After *PR* 6, Pl. X.
- 8.19 YUAG H26.
- 8.20 YUAG Fv98.
- 8.21 Top, SJ 2007-3317, bottom SJ 2007-3787.
- 8.22 Details from YUAG archive drawings Fort. N.2 and N.3.
- 8.23 YUAG archive drawing Fort. N.7.
- 8.24 YUAG B22.
- 8.25 YUAG B108.
- 8.26 YUAG B112.
- 8.27 SJ 2007-3792.
- 8.28 YUAG Y235.

- 8.29 SJ.
- 9.1 SJ.
- 9.2 SJ.
- 11.1 SJ.
- 11.2 YUAG archive drawing Tr. Arch N.1.
- 11.3 SJ.
- 12.1 Image originally published in Seren et al. 2009, reproduced courtesy of Zentralanstalt für Meteorologie und Geodynamik, Vienna, Austria.
- 14.1 YUAG B82.
- 14.2 SJ 2016-3295.
- 14.3 YUAG Y38.
- 14.4 YUAG Fi1.
- 14.5 YUAG Fi2.
- 14.6 YUAG archive drawing Chapel N. 12.
- 14.7 SJ 2001.
- 16.1 Image (c) Google Earth and Digital Globe, 2017.
- 16.2 MFSED.

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